

THE SOCIAL CONTEXT OF INJURY AND THE PSYCHO-SOCIAL EFFECT OF INJURY IN FEMALE ATHLETES

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ABSTRACT

Background: Social support from within the culture of sport helps female athletes to develop confidence on and off the playing field. As female athletes become more involved in the culture of sport they further develop their athletic identity until it becomes the most important facet of their identity. When injury disrupts that identity it is extremely distressful, and athletes, having invested so much time and effort on sports, are forced to reconcile their injured bodies with the image they have of themselves as strong able-bodied athletes. Throughout recovery participants reassess identity and form a new understanding of body and self.

Purpose: This study focused on the social context within which injury occurred and the experience of injury for female athletes to increase our understanding of both the circumstances that led to injury and the effects of injury on athletes' lives.

Methodology: The data for this study was co-constructed in two focus groups and one interview through the lens of the social constructivism paradigm. Nvivo software was used for coding the transcripts, and to develop the emerging themes. Issues such as time away from sport, well-being, sense of self, academic achievement, social relationships, employment and secondary injury prevention were explored.

Analysis: Prior to injury the development of an athletic identity, as well as social supports obtained through that identity, constituted the social context shaping respondents' understanding of pain and injury. Once injured, women's athletic identity influenced their decision to delay seeking help and play with pain. Injury caused athletes to re-evaluate their identity not only as sports people but also as women, altering their perception of their own bodies and femininity. During recovery the athletic identity and

its attendant social supports affected how participants reacted to injury, influencing decisions to return to play earlier than recommended and shaping their lived experience.

Discussion: This study found that injury not only challenged the athletic identity, but also the feminine identity. In addition, receiving sport specific support was highlighted as a major concern for injured athletes. Previous studies have revealed similar findings showing that the culture of sport and the athletic identity developed by elite athletes influences them to accept pain as part of the price of high-level competition and pressurizing them to play while injured. Normalization of pain has led researchers to label the culture of sport a ‘culture of risk’. Nevertheless, the social support derived from trying to maintain the athletic identity was still perceived as having a positive affect on the rehabilitation process.

Conclusion: Injury challenged the athletic and feminine identities’ of injured athletes, and sport specific social support was extremely influential on athletes’ experience of injury and recovery. The social context that shaped the athletic identity provided female athletes with a beneficial support network, but at the same time projected the expectations of the culture of sport such as playing with pain and injury. Their identity was inextricably tied to the culture of sport so that, in addition to feeling pressured to play with pain, injury threatened their entire identity. Social support derived from participants athletic identity was perceived as a positive influence during their recovery from injury but, on occasion, pressured them to return to play sooner than recommended.

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INTRODUCTION

Sport Injury and the Barriers to Recovery for Women

The OHA (Ontario Hockey Association) brought parent after parent in who said they didn't believe girls should be sent into a game where checking occurred because of the potential harm to them. ...Do you have a boy? Do you worry about the potential harm done to him (Robinson, 2002, p.203)?

I was seven and half when I stood on tiptoe in my warm boots bundled into my coat, mittens, scarf and hat to peer through the glass above the white plastic barriers that encircled the rink. Every few minutes I wiped a viewing hole through the fog my breath created so that I could watch my ten-year-old brother playing the best game invented. He was already one of the fastest skaters even having only taken up hockey a year earlier when we moved to Canada. The cold air and the speed of the game made my heart thump, and it was then that I made the decision that I too would play hockey.

When I was eleven-years-old, one of the coaches from the Select Team called to tell my parents and I about the team, and he encouraged me to attend tryouts. I only played on that team for five months until I broke my leg, but it was not the injury that prevented me from returning to the team the following year.

A couple of days after I broke my leg I received a card signed by all my teammates along with a gift. That gift had made me cry, not in gratitude but in anger because sitting on top of the basket of candy was a pink teddy bear. My mom reassured me that it was probably a parent and not a friend who had picked out the gift, and that no one thought that I played with pink teddy bears. And so, accepting her explanation I had decided that even though it was hard to watch from the sidelines rather than play, I wanted go to the

next game to support my friends and teammates.

I entered the rink on my crutches feeling a bit self-conscious, but parents, coaches and players came over to talk to me, and it felt good to be back. Eventually kids were ushered into the change room to get dressed, parents wandered to the snack shop to grab a coffee, and I found myself briefly alone. My favourite coach walked over, and I was really glad because I had not spoken to him since my injury. I wanted to tell him that the doctors had said I would be ready to play again by the summer, and I planned on going to hockey camp to prepare for next season.

I do not remember his exact wording but he said to me, “you know you were injured because you’re a girl, right?” I had no idea how to respond. He was an adult, my favourite coach, and one of the men who would have decided whether I made the team the following year. I was also not entirely sure that I had understood correctly until he followed the question by explaining to me that at tryouts they –I can only assume now that ‘they’ was the all-male coaching staff –did not want me on the team because I was a girl. They had put me on the team only because I excelled enough at tryouts that other people watching would think that it was unfair if I did not make the team. But after my leg was broken it proved that I should not have been playing hockey, much less with boys.

I was dumbfounded and upset and still am every time I think about that coach or that team. Never mind that at eleven I was growing faster than most of the boys, I was bigger and stronger than many of them too, and that I was hit even though contact was not allowed in our age group. Incidentally, after that conversation and during the game that I had come to watch, a boy was carried off strapped to a spinal board. Thankfully, he did

not sustain a severe injury. I have always wondered what the coach made of that incident, and whether he saw the irony in it.

And so now when I hear people use injury statistics as a way to challenge girls' and women's involvement in sport, it bothers me immensely both personally and professionally. The fact remains that in certain sports female athletes are more likely to sustain specific types of injury (Harber, 2010; Hewett, Myer, & Ford, 2006). It is also widely accepted that sport is extremely beneficial for women both physically and mentally (Charlesworth & Young, 2004; Coakley & White, 1992; Collinson & Hockey, 2007; Colvin & Lynn, 2010; Harber, 2010; Krane, Choi, Baird, Aimar, & Kauer, 2004; Manley, 1996; Nixon II, 2004; Pike & Maguire, 2003; Pike, 2005; Robinson, 2002; Sparkes, 1998; Sparkes et al., 1996; Theberge, 1997, 2008; Young & White, 1995; Young, 1997). Nevertheless, the research should be used to target interventions to limit injury among female athletes or improve recovery, not to discourage girls and women from participating in sport in the manner that my coach attempted to discourage me.

Sport experiences differ between men and women. Some would vehemently oppose that statement, maybe even say that it is prejudiced. Yet with very few exceptions, male athletes earn more, enjoy greater prestige and represent the 'ideal' man (Robinson, 2002). Contributing to these disparities are the additional barriers faced by women at higher levels of sport, such as receiving less funding, less adequate professional support, less and sometimes even negative media coverage (Harber, 2010; Pike, 2005; Theberge, 2006). How can female athletes who are constantly fighting to prove themselves as both feminine and athletic simultaneously – a feat not easily accomplished for many athletes – possibly experience the acceptance, or even worship, that accompanies sport for men?

And if women's experience of sport involvement is different, then how do these differences manifest in the experience of injury?

Injury management and recovery are important for continual involvement in lifetime physical activity, which in turn decreases the risk for premature mortality, hypertension, type II diabetes, heart disease, and obesity (Manley, 1996). Women and girls engaging in sport also have a more positive sense of self, are less likely to experience depression, are less likely to use drugs, and perform better in school (Colvin & Lynn, 2010; Harber, 2010). These protective effects are lost when injuries sustained during sport prevent participation for significant periods of time (McAllister, Motamedi, Hame, Shapiro, & Dorey, 2001; Valovich McLeod, Bay, Parsons, Sauers, & Snyder, 2009). In addition, athletic injuries are associated with the loss of sports scholarships and salary, reduced academic performance, loss of time from work or school, pressure from coaches and teammates to return to play, mental health problems, and long term disability (Evans, Hardy, & Fleming, 2000; Griffin et al., 2006; Hewett & Lindenfeld, 1999; Nixon II, 1994).

The protective effects of sport are particularly valuable in light of the rising participation rates for women in sport, especially notable in the past three decades (Harber, 2010). Improving support and care for women in sport would help promote participation, but most of the research pertaining to training and conditioning in athletes has been conducted on male Caucasian athletes between 18-25 years of age (Harber, 2010). Training and conditioning are an integral part of injury prevention and management in athletes, and studies have already shown that sport specific training can reduce female athletes' risk of injury (Griffin et al., 2006; Hewett & Lindenfeld, 1999;

Mandelbaum et al., 2005). Programs specifically geared towards women need to be developed because ‘women are not men,’ just as ‘children are not small adults,’ and training programs developed for male athletes are not necessarily appropriate for female athletes (Harber, 2010).

The lack of understanding of women’s specific experiences of injury have become more relevant as women’s participation in sport increases because with an increase in participation there has been a corresponding increase in injury rates among female athletes. For example, anterior cruciate ligament (ACL) injuries in female athletes are between 4-6 times more common than in males participating in the same sport; patellofemoral joint (PFK) and shoulder injuries are also more common (Harber, 2010; Hewett, Myer, & Ford, 2006). The higher rates of injury amongst female athletes make it important to specifically help female athletes through the rehabilitation process, and prepare them for returning to sport.

To fully understand how to assist female athletes it is important to analyze the social context of injury and the effects of injury on female athletes. The experiences of injury for female athletes need to be examined as well as the social and psychological effects of injury. Some of the most critical psychosocial effects are damage to self worth, anxiety about future athletic ability, and the loss of both an athletic identity and the social support provided by teammates and the sports network (Bianco & Eklund, 2001; Cockett & Holtan, 2000; Evans et al., 2000; Nixon II, 1994).

The positive benefits of sport on the health and wellbeing of women and girls, and the barriers to participation that female athletes’ face confirm the importance of helping female athletes continue to be involved in sport. It is for those reasons, and because I

know that being female does not lead to a sport injury, that I wanted to study injury, the social context in which it occurred, and the psychosocial effects of injury on female athletes.

Social Support

Social support is an integral part of the recovery process for injured athletes. While it is accepted that social support contributes positively to injury rehabilitation, a clear definition and the ways in which it helps are less understood (Bianco & Eklund, 2001; Evans et al., 2000; Freeman, Coffee, & Rees, 2011; Magyar & Duda, 2000; Nixon II, 1994; Rees & Hardy, 2000). Social support has been further divided into categories designed to explain how social support is given or received and which types are the most useful.

For example, Bianco and Eklund show that social support is a multiconstruct that includes structural, functional, and perceptual support. ‘Structural social support’ consists of the community network available to an injured athlete and includes coaches, medical staff, teammates, and parents. ‘Functional support’ is the beneficial exchanges that occur between providers and recipients, and this can vary depending on to whom the athlete turns for support. ‘Perceptual support’ is injured athletes’ appraisal of the care that they receive, and it is strongly influenced by the first two types of support. It also differs based on personality factors and prior experience with the support received when previously injured (Bianco & Eklund, 2001).

Another division of social support used by Bianco, Eklund and others is ‘perceived support,’ the aid that athletes believe will be available to them if injured, and ‘received

support,’ the actual physical and emotional care that athletes receive when injured. ‘Perceived support’ is the social guidance and assistance that athletes believe they can access when needed, and it is associated with strong coping mechanisms and injury prevention. ‘Received support’ is the actual social help available to athletes while they are injured and undergoing rehabilitation; it is a necessary part of a successful recovery. As such, ‘received support’ is of more importance when discussing the psychosocial effects of injury on athletes (Bianco & Eklund, 2001; Freeman et al., 2011).

Other researchers have found that social support for long term and possibly career ending injuries can be divided into categories such as ‘listening support,’ ‘emotional support,’ ‘emotional challenge,’ and ‘task support’. Athletes cite ‘listening support’ as a valuable outcome of interviews conducted in research because they are able to tell their story and share some of the burden of injury. ‘Emotional support’ is sought from interviewers, physiotherapists, nurses, and family members, with whom the participants feel that they can let down their guard and discuss their feelings towards injury. ‘Emotional challenge’ is defined as the particular challenges each athlete faces in regards to his or her perception of injury and the injured self, and the ways in which he or she copes with and is supported during these problems. ‘Task support’ is tangible help provided mostly by health care workers, neighbors, and friends (Evans et al., 2000).

Another similar categorization of social support – ‘emotional support’, ‘esteem support’, ‘informational support’ and ‘tangible support’ – differs in the way the different types of support are grouped. ‘Emotional support’ is described simply as having people to converse with, such as friends, therapists, family, and other injured athletes with whom to discuss and share the experience. ‘Esteem support’ is closely equated to the above

‘emotional challenge’ in that it refers to overcoming specific obstacles aided by a person who helps build self-confidence. The advice provided to patients by professionals, as well as sharing knowledge with other similarly injured individuals on how to deal with injury is categorized as ‘informational support.’ ‘Tangible support,’ essentially the same as ‘task support,’ is explained as the physical help that patients need (Rees & Hardy, 2000; Rees, Smith, & Sparkes, 2003).

Another way to define social support is by support activities versus support messages. An example of a social support activity is calling on or visiting an injured athlete, and the message in that activity is showing concern and care. Sometimes a support activity conveys a negative message. For example, a coach giving instruction to an injured athlete can be perceived by some athletes as a message of caring, but by others as an indication that the coach does not believe that the athlete would succeed in returning to sport without instruction (Bianco & Eklund, 2001). This possibility of a negative message is especially important for care providers to realize so that they help rather than hinder the rehabilitation process.

The multiple definitions of social support make it difficult to determine a particular method of social support that might benefit all athletes, but for my research I will use the latter explanation of social support, support activities and messages. This definition most clearly highlights the differences in how people relate to support rather than what type of support is given. Whether coaches and teammates are trying to be helpful is less important than the athletes’ perception of how they are supported through their injury and recovery.

Social support can have many manifestations and each person may have different

needs with regards to how social support is given and received. Social support can also sometimes be perceived by the recipients as negative and for this reason many studies have assessed the value of social support for injured athletes. Yet more studies have evaluated how social support contributes to the rehabilitation process, and these reviews are especially important to my research (Bianco & Eklund, 2001).

Several studies use quantitative means in order to assess the role of social support, and these studies found significant relationships between social support and injury. Each evaluated a slightly different dimension of social support, but overall the studies show that increased social support leads to a more successful recovery and return to play (Freeman et al., 2011; Hardy, Richman, & Rosenfeld, 1991; Magyar & Duda, 2000). In addition, the feedback and support provided by coaches, trainers, athletic therapists, physiotherapists, teammates, and friends has an impact on whether athletes play while hurt or return to play before they are fully recovered (Nixon II, 1994, 1996). Clearly, playing while injured or when not fully recovered is not competent injury management, and since 94% of athletes reported playing when injured, further investigation is required to learn how to prevent injured athletes from participating in sports (Nixon II, 1996).

Qualitative measures are also used to evaluate the effects of social support, and these studies show that social support is beneficial and affects injury management (Bianco & Eklund, 2001; Evans et al., 2000; Nixon II, 1994, 1996; Rees & Hardy, 2000; Rees et al., 2003). Social support has a positive emotional affect when people close to the injured athlete visit, listen, and help with simple tasks. It is important that athletes perceive empathy and a willingness to help, so that they feel reassured through their rehabilitation and not pressured to return to sport too quickly. Social support also helps build self-

confidence, self-esteem, and a healthier sense of self. This is especially important for athletes whose future as non-athletes requires them to create a new identity (Bianco & Eklund, 2001; Evans et al., 2000; Rees & Hardy, 2000; Rees et al., 2003).

Another means whereby social support affects injury management is through instruction, goal setting, and long-term planning through rehabilitation. This type of support is provided by professionals who are knowledgeable in the area of sport and athletic injury (Rees & Hardy, 2000; Rees et al., 2003). When these professionals are from within the athletes' existing support network of athletic therapists, coaches, trainers and teammates, then the relationship that the injured athletes have with this sports social network is extremely important and predictive of rehabilitation outcomes. The sports social network functions as a specific type of social support system comprised of people involved in an athlete's sports experiences (Nixon II, 1994).

Social support also affects athletes' confidence in themselves, and confidence in those who can help them. Athletes who trust their social support network, whether it is family, therapists or a sports social network, are more confident to seek help, and are more confident throughout their rehabilitation and until they return to play. Conversely, those who felt let down specifically by their sports social network are more negative towards their rehabilitation process and are less likely to seek help for injuries (Bianco & Eklund, 2001; Evans et al., 2000; Magyar & Duda, 2000; Nixon II, 1994, 1996).

Social support is also observed to be negative in the discussion of activities versus messages. An activity such as providing instruction can either convey the positive message of support or the negative message that the athlete will not succeed independently without instruction (Bianco & Eklund, 2001). Another way in which social

support can be negative is through athletes' perceptions of the pressures and expectations of their sports social network. When athletes feel that their position on the team is jeopardized by injury or that coaches and teammates want them to play injured, they are likely to return to play before full recovery. In that situation, the sports social network plays a negative role in injury management that manifests in the emotional aspects of confidently returning to game situations and on the physical aspects of efficacy to a rehabilitation program, not reporting pain, and returning too quickly from an injury (Evans et al., 2000; Nixon II, 1994, 1996).

Connecting the Athletic Identity to the Culture of Sport and Subcultures

The sports social support network also functions to create social norms amongst athletes, which results in a culture of sport. Central and interrelated to the culture of sport is the athletic identity. This identity and culture of sport is common to all athletes, both male and female, although there are some differences for female athletes in the benefits that they received from sports, and in their athletic identity (Charlesworth & Young, 2006; Krane et al., 2004; Young, 2004). Athletes' conformity to the sports identity, as well as the predisposition of people with specific personality traits to ascend to elite levels of sport, contributes to a shared culture (Collinson & Hockey, 2007). This culture of sport has many positive implications, but is also associated with risk taking behaviors including ignoring and normalizing pain and injury, the negatives of which affect injury management, re-injury and secondary injury prevention (Cockett & Holtan, 2000; Duquin, 1994).

Although the literature shows that a culture of sport exists, it does not preclude

differences between the social norms and behaviors of athletes in different sports. Each sport has its own subculture, specific to the physical and mental demands of that sport. Subculture refers to a group of people who share customs, traditions, language, beliefs and behaviors (Young, 2004).

The term subculture signifies a way of life of a group of people. Denoting communities within communities...it is useful to envision subcultures with respect to the perspectives (or world views) characterizing their members, the identities people achieve as participants, the activities deemed consequential in that context, the bonds participants develop with one another, and the sorts of commitments the people involved make with respect to the setting at hand (Prus, 1996, p. 85).

An athletic identity is constructed within the context of each sport's subculture as well as the larger culture of sport.

Athletes may be attracted to the culture of sport because it allows them to enjoy many benefits. Distinction and status amongst other athletes, peers, family, coaches and the general population through the media is one such benefit (Charlesworth & Young, 2004; Collinson & Hockey, 2007; Sparkes, 1998; Theberge, 1997, 2006; Young, 2004). In addition, elite and professional athletes sometimes receive financial remuneration for their success in sport. Women also find sport to be an empowering tool that they can use to challenge and prove themselves in a once predominantly male domain (Coakley & White, 1992; Krane et al., 2004; Theberge, 1997; Young & White, 1995; Young, 1997). These benefits, for both male and female athletes, contribute to athletes' desire to identify with the culture of sport.

Sport participation also helps female athletes to develop positive feelings and

emotions about themselves, which influence them to embody the culture of sport. In a study by Nancy Theberge, female ice hockey players explain that being an athlete makes them feel powerful, aggressive, strong and fearless. The women in this study also elucidate on other athletic identity traits such as being unselfish, committed to the team, and hard working (Theberge, 1997). Sports also gives the athletes in Theberge's study, as well as in many other studies, a sense of satisfaction and well-being (Sparkes et al., 1996; Sparkes, 1998; Theberge, 1997, 2008). Women often mention pride in athletic accomplishment and the ability to succeed as a powerful factor in their sports involvement (Collinson & Hockey, 2007; Krane et al., 2004; Pike & Maguire, 2003; Sparkes, 1998; Theberge, 2008). Athletic participation also helps to build a positive sense of self, thus promoting the construction of an athletic identity (Sparkes & Smith, 2003; Sparkes et al., 1996; Sparkes, 1998; Theberge, 1997, 2008).

The athletic identity developed within the culture of sport consists of many positive aspects that contribute to being a successful athlete. Social support and building relationships within sporting networks can help athletes excel at sport and prevent injury (Bianco & Eklund, 2001; Evans et al., 2000; Freeman et al., 2011; Hardy et al., 1991). When athletes perform well, they experience glory, satisfaction and recognition, and in professional sports, monetary rewards and media attention as well (Charlesworth & Young, 2004). Also, people within the sporting culture and society promote athletes who sacrifice themselves for their team, for winning, and who prize sport above all else (Duquin, 1994; Pike & Maguire, 2003). This in turn strengthens pride in sporting ability and reaffirms conformity to the athletic identity and culture (Charlesworth & Young, 2004). Athletes' dedication to play at all costs is seen as heroic in sporting contexts and

the media, but the pressure of those values is not always positive.

The normative behaviors and expectations in the culture of sport can be harmful for athletes. In fact, the culture of sport has also been named the culture of risk because of the inherent risks associated with sport participation (Nixon II, 2004; Pike & Maguire, 2003; Safai, 2003). There is a continual risk of pain, injury and re-injury, which is embraced as part of the culture of sport (Donnelly, 2004; Nixon II, 2004; Young, 2004). Athletes are also willing to take the economic risk of relying fully on sports to the detriment of education and other life opportunities. Socially, they risk not being able to maintain relationships out of the sports environment (Donnelly, 2004).

Many athletes explain that their commitment to sport and the team means sacrificing other areas of their lives. The long training hours needed to maintain high levels of competition necessarily infringes on other time commitments, leading to the sacrifice of other pursuits such as education. This singular focus fosters a narrowed identity where elite athletes define themselves solely as athletes at the cost of other identities, such as student or artist, which they may have developed. Throughout the research, athletes use words and phrases that echo this sentiment, such as sacrificing their 'outside' life, deriving satisfaction primarily from sport, and being self-sacrificing. One athlete explains feeling that all other activities lack meaning in comparison with training and competing (Pike & Maguire, 2003; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996).

The problem with sustaining an athletic identity at any cost is the idea that athletes 'put all their eggs in one basket'. Sport becomes the central focus of their lives, and if their participation is interrupted, they can experience a major identity crisis (Thing, 2004). In addition, many athletes who have been injured or deselected are despondent

about future possibilities outside of sport (Sparkes & Smith, 2003; Sparkes, 1998). Not surprisingly, depression and anxiety are both problems associated with injured athletes or those who are at the end of their career (Collinson & Hockey, 2007; Thing, 2004).

The connection between the athletic identity and the negative aspects of the culture of sport are well explained by Elizabeth Pike's (2005) classification for athletic identity in health and injury. According to her theory, 'having face' is the way that a healthy athlete may present herself. 'Wrong face' is an inconsistency that the athlete experiences with her own self-image, an example of which is the inability to train due to injury. Seeing an athlete in full gear on crutches is a contradiction in the identity that others expect of an athlete, and this is termed 'out of face'. Injured athletes who feel that their athletic identity is in question try and 'save face' or 'keep face' by playing through pain, and not admitting to injury. The incongruity between an athlete's perception of herself as a healthy able-bodied sportswoman and the inability to perform due to injury drives athletes to continue playing while injured (Pike & Maguire, 2003; Pike, 2005). Playing at all costs is a mentality shared by many athletes, and it also contributes to the emphasis on sacrifice in the culture of sport.

Another negative aspect of embodying the athletic identity is the normalizing of macho aggressive behavior, especially in contact sports (Young & White, 1995; Young, McTeer, & White, 1994). Studies show that women approach sport with similar views to the dominant male sporting culture; violence is accepted and even sometimes praised (Theberge, 1997; Young, 1997). The language women use to describe their experiences in sport is that of conquest, aggression and danger (Young & White, 1995). The manifestation of this behavior makes risk acceptable in the culture of sport; athletes

expect to be targeted for violence and to reciprocate.

Athletes ascribe to the culture of sport because of the many benefits of belonging to that culture. Social support and relationships built within the culture of sport help athletes to excel at sport and provide them with a support network during injury (Bianco & Eklund, 2001; Evans et al., 2000; Freeman et al., 2011; Hardy et al., 1991). In addition, the benefits to women who participate in sport are well documented in the literature, explaining the satisfaction, pride and positive self-image gained from playing sports (Charlesworth & Young, 2004; Colvin & Lynn, 2010; Harber, 2010; Nixon II, 2004; Pike & Maguire, 2003; Pike, 2005). The culture of sport is also termed the culture of risk due to the culture of normalizing pain and playing with injury (Donnelly, 2004; Nixon II, 2004; Pike & Maguire, 2003; Safai, 2003; Young, 2004). Part of admittance into the culture of sport fully involves embodying the athletic identity, which in turn leads to a narrowed identity and further acceptance of the positive and negative credos in the culture of sport.

The Process and Importance of Developing an Athletic Identity

The benefits and positive feelings that athletes derive from sport encourage athletes to fully immerse themselves in the culture of sport and to develop an athletic identity. Indeed, part of becoming enfranchised into the culture of sport and sports subcultures is embodying the athletic identity (Nixon II, 2004). Only those who develop an identity acceptable to their specific sports subculture are fully included in all aspects of team life.

Coakley and Donnelly (1999), who studied the construction of a sports identity in male rookie rock climbers and rugby players, found that there were three stages common

to identity formation in both sports. The first of these stages is ‘presocialization’, which refers to the preconceptions that people have of the subculture specific to the sport before they are involved. These impressions are formed from media representations and known stereotypes, and new recruits sometimes find that behaviors based on those assumptions are inappropriate. ‘Selection and recruitment’ is the second stage, at which point direct contact is initiated, such as being invited on a climb or selected for a team. This stage is dependent on many factors some of which are financial stability, proximity, and a chance encounter with a person who recruits the new participant. ‘Socialization’, the third and last stage, is the adjustment period for rookies to fully absorb the sports subculture and begin to develop their own athletic identity. Once the process is complete, athletic identity can be confirmed and re-confirmed as participants become trusted teammates who would be asked to lead a climb or be expected to take on more responsibility on the field. If rookie errors are not corrected and athletes do not develop the expected athletic identity, then they are not fully accepted.

Showing fear in a climb is an example of an unforgivable mistake in the climbing subculture. A scared climber might never be asked back for another climb because of the danger he or she may incur for themselves and others. In that case, developing the correct athletic identity and ‘playing by the rules’ of the subculture are imperative to participation in the sport (Donnelly & Young, 1999). Once the athletic identity is developed, then the glory, attention and satisfaction associated with sport also serve to reaffirm and strengthen the athletic identity (Charlesworth & Young, 2004).

Biological and Psychological Explanations for Developing an Athletic Identity

The culture of sport and sports subcultures contribute to the construction of an athletic identity through social and sociological contexts. However, there are other contributing factors to the development of an athletic identity such as biological predispositions to excel at sport. An obvious biological advantage is height, whether an excess for basketball players or a lack of height for gymnasts. Studies have also found genetic variations in the response to training for increased VO₂ max, a physical advantage for endurance athletes. There are also genetic differences in the distribution of fast and slow twitch muscle fibers, which influence the type of sport at which an athlete excels (Ahmetov et al., 2011; Eynon et al., 2011). Many athletes have low monoamine oxidase (MAO) and dopamine beta hydroxylase (DBH), and high levels of testosterone (Donnelly, 2004). These biological factors all influence who can reach the highest levels of competition, and therefore who develops into an elite athlete with an athletic identity.

According to psychologists, personality types, which are believed to be partially inherent, influence thought processes, the risk for psychological disorders, emotions, and choices. The Type T personality includes traits such as thrill-seeking, adventure and thinking out of the box, and it too is associated with low levels of MAO and DBH, and high levels of testosterone. Many athletes have a Type T personality, which indicates a psychological predisposition to the development of an athletic identity (Donnelly, 2004). Family, community and culture are also psychological factors that affect identity development and participation in sport, ultimately influencing who develops into an athlete with a strong affiliation to the culture of sport and the athletic identity (Guest & Schneider, 2003). Thus, it is the interplay between psychological factors, such as

personality types and the effects of culture and community on identity development, biological predispositions and the pressure exerted by the culture of sport that inform the athletic identity.

The Athletic Body, Gender Identity and the Athletic Identity

The athletic identity is also strongly connected to the physical body as “bodies are never just objects but part of a process of negotiating and re-negotiating self-identity” (Budgeon, 2003, p. 45). And in sport, bodily performance is prized above all else. Identifying as an athlete includes having a successful sporting body that can be manipulated to fit the tasks associated with the sport (Collinson & Hockey, 2007; Duquin, 1994; Krane et al., 2004; Pike & Maguire, 2003; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996). One athlete describes achieving a feeling of fluidity between body and mind when she trained herself to react with perfection, precision and speed to each small physical change in motion necessary to her sport (Sparkes, 1998). Many athletes mention having the right body for the game, whether it is immense strength for heavy weight rowing, or compact slimness for long distance running (Collinson & Hockey, 2007; Pike & Maguire, 2003). As such, the body’s ability, and training the body for perfection are part of the athletic identity.

For male athletes in the studies reviewed, the body they strive for is synonymous with the hegemonic ideal for male bodies in society; there is no mention of conflict between their athletic and masculine bodies (Young & White, 1995, 2007; Young, 2004). However, the societal ideal for the perfect female body as perceived by many of the women in the literature is at odds with the athletic body needed to excel at many sports,

especially those where heavy musculature is an advantage. While women prize a strong athletic build in the context of sport, many female athletes also mention feeling unfeminine, butch, unattractive, deviant in society, too muscular, bigger than other girls, and marginalized (Charlesworth & Young, 2006; Krane et al., 2004; Pike & Maguire, 2003). Some negative comments towards female athletes include comments on their hands being as big as men's hands, huge shoe size and being too tall to date (Krane et al., 2004). This creates a paradoxical ideal for their bodies – a sporting female body requiring strength and bulk versus society's feminine ideal of prized slimness.

The consequences on the athletic and feminine identities of sportswomen resulting from the conflicting demands placed on their bodies can be explained using Elizabeth Pike's (2005) previously mentioned classification for athletic identity in health and injury. According to her theory, athletes are 'out of face' when perceived as deviating from the health and bodily perfection that people expect of athletes. The larger physique required by female athletes in some sports is also 'out of face' with societal ideals for the female body. Being 'out of face' means that women feel that their feminine identity is in question and they try to salvage their self-image by creating a new identity. In order to do this, they reject societies' feminine ideals and identify solely as athletes, making their sporting body of extreme import to their sense of self. For these women 'having face' in the sporting context is even more important because they are 'out of face' in their feminine identity. They tend to rely more strongly on the sports social network, because being an athlete offers them social acceptance and an identity with which they are comfortable. The pride from a strongly confirmed identity, also now their sole identity, leads athletes to over conform to the culture of sport (Pike & Maguire, 2003; Pike, 2005).

In contrast, female athletes competing in sports where a smaller build is advantageous, such as the lightest weight class in rowing, distance running and gymnastics, feel attractive because their bodies fit the ideal feminine body. However, in sports where aesthetics are important, some athletes also describe struggling with eating disorders and continually perfecting their appearance (Duquin, 1994; Robinson, 2002). So although these athletes ‘have face’ in both their feminine and athletic identities, it comes with the pressure of aesthetic as well as athletic perfection.

The pressure to conform to the ideal female body is part of a broader demand on the femininity of sportswomen. Female athletes note that while they are outgoing, loud, and sweaty, the feminine ideal is to be dainty, soft, girly, and quiet. They also eat more than non-athletic women, and find it difficult to get a date (Krane et al., 2004). Athletic characteristics also include strength, aggression, confidence, and physical and mental fortitude, typically seen as male characteristics that contrast society’s ideal of a passive, dependent, and subservient women (Charlesworth & Young, 2006; Krane et al., 2004; Theberge, 1997). Female athletes struggle to appear feminine because of their perceptions of athleticism as contradictory to the feminine ideal. They engage in practices that make them feel more feminine such as putting on make-up, doing their hair and wearing pink in competition (Robinson, 2002).

Female athletes acknowledge that they make a concerted effort to conform to heterosexual femininity, and that despite these efforts they are labeled with many stereotypes (Krane et al., 2004). Their femininity and sexuality are challenged, and negative terminology such as ‘butch’ and ‘dykey’ are used to describe strong athletic women. Most female athletes are wary of being labeled, but report that they are

supportive of different sexual orientations and gender identities. They also realize that attempting to present themselves as ‘normal’ women is a reaction to a masculine, sexist and homophobic society. Some sportswomen however reject even being named feminists because of what it means to their image as heterosexual female athletes while others express homophobic attitudes (Young & White, 1995; Young, 1997).

Another obstacle for female athletes is media coverage. Women athletes are frequently objectified in the media. For example, after Manon Rheaume became the first female player in the NHL, *Playboy* magazine offered to do a nude photo shoot as ‘coverage’ of her achievements (Young & White, 1995). The media focus for female athletes is often on their attractiveness or sexuality rather than their athletic prowess, which belittles athletic accomplishments while praising femininity (Budgeon, 2003; Collinson & Hockey, 2007; Hall, 2002; Robinson, 2002). Women’s sport is less reported, and articles only cover specific professional women’s sport such as tennis. In addition, coverage includes stories that sexualize female athletes and trivialize women’s sport (Duncan, Messner, Willms, & Wilson, 2005; Hall, 2002; Robinson, 2002; Young, 1997). Female athletes recognize that women’s sport is portrayed as the lesser alternative to men’s sport which is the ‘real’ game (Theberge, 1997).

An athlete’s success is closely tied to her body because physical prowess is essential to sports. Her perception of that body and how it is valued in society and in the culture of sport shapes her self-identity. Whether society’s expectations for women and for the female form conflict or concur with the culture of sports’ ideals impacts the way female athletes relate to their body.

The Influence of the Culture of Sport and Athletic Identity on Pain and Injury

Many sociologists study the extensive implications of the culture of sport on athletic identity, injury, risk, and wellbeing. Over-conformity to the culture of sport means that athletes continue to play sports, regardless of the consequences, in order to retain their athletic identity. They even tolerate pain and injury so that they may continue participating in sport, and indeed consider enduring pain and injury to be part of the athletic identity (Pike & Maguire, 2003; Pike, 2005; Young, 2004). Athletes' sporting bodies are part of the machinery that facilitates successful performance. The body represents their identity, making injury not only a disruption to athletes' physical self but also a threat to their personal identity (Duquin, 1994).

There are many reasons why female athletes accept the risk, pain and injury inherent in the culture of sport. These reasons can be divided into four main categories, each of which induces female athletes to accept risk, pain and injury in a different way. The culture of sport itself cultivates the belief that risk, pain, injury and sacrifice are part of the sporting experience (Donnelly, 2004; Nixon II, 2004; Pike & Maguire, 2003; Young, 2004). Social support and the pressure experienced within the culture of sport induce female athletes to play through pain (Bianco & Eklund, 2001; Nixon II, 1994). The internal motivations to retain an athletic identity, and the belief that being an athlete means being able to overcome pain, encourages female athletes to compete despite pain and injury (Cockett & Holtan, 2000; Collinson & Hockey, 2007; Pike, 2005). The connection and pride athletes feel towards their sporting bodies and the ability of those bodies to perform well, also pushes female athletes to play through pain and injury.

The culture of sport is also termed the 'culture of risk' because of athletes'

willingness to submit themselves to risks (Nixon II, 2004; Pike & Maguire, 2003; Safai, 2003; Young, 2004). If the same risk of injury existed in any other workplace, it would not be tolerated, but in sport it is normalized as part of the culture (Young, 2004). Injury, pain, sacrifice and risk are an intrinsic part of the culture of sport and the subcultures within specific sports. There is an expectation to over-train, play through pain, and risk injury and re-injury (Collinson & Hockey, 2007; Donnelly, 2004; Nixon II, 2004; Young, 2004). Two thirds of athletes report that they would be willing to play hurt, knowing fully the risks of improper injury management (Nixon II, 2004). In a study specifically on female rowers, it was found that 26% of the women did not take any time off for injury, 44% did not change anything about their training when they were injured, and 40% received no treatment at all for injury (Pike, 2005). The culture of sport fosters an environment where the risks associated with pain and injuries are socially accepted.

The social support and social pressure within the culture of sport are strong incentives for female athletes to play while they are injured or in pain. Women explain that commitment to the team and team camaraderie, although supportive, also makes them feel that they are letting the team down if they do not compete. Pain is not viewed as reason enough to miss an important game when the team is relying on you, therefore female athletes are reluctant to discuss pain with their teammates and coaches. Instead, they tend to ignore and hide pain from those in their sports social network (Charlesworth & Young, 2004, 2006; Nixon II, 1994). Pain is seen as something that should be personally controlled, and only a 'real' injury that prevents participation is to be reported and treated (Cockett & Holtan, 2000). In fact, when asked about injury, female athletes discuss injuries that necessitate missing practices or games; minor injuries that do not

prevent participation are only mentioned when specifically questioned about pain (Pike & Maguire, 2003; Theberge, 1997). When dealing with injury in a sporting environment, sports social networks demonstrate more pressure than support.

Sportswomen also experience direct social pressure from the team, coaches and significant others to keep playing when injured or in pain (Charlesworth & Young, 2004). Part of the culture of sport is to win at all costs, and that sometimes means sacrificing one's self to play through pain and injury (Pike & Maguire, 2003). There is even positive reinforcement from the media for athletes who dissociate themselves from pain and continue to compete with pain and injury. Sports social networks and the media valorize pain in sport, praise athletes who are willing to sacrifice everything for the team, and at the same time, trivialize sports injury (Duquin, 1994; Theberge, 2006; Young, 2004). Due to direct social pressures, athletes are unlikely to discuss pain and injury with each other or their coaches, placing themselves at further risk of injury and precluding any sort of injury management (Cockett & Holtan, 2000).

Often those treating injured athletes, as well as their teammates, coaches, and trainers do not take their pain seriously, thus encouraging them to keep playing injured (Nixon II, 1994; Pike, 2005). There is even hostility towards athletes who admit to pain and injury, which makes athletes more likely to leave pain unreported and return from injury quicker than advised (Charlesworth & Young, 2006). The social exclusion from the sports social network, either while undergoing rehabilitation or permanently, leads to loss of status on the team or de-selection, which for some women is a higher price to pay than the physical consequences of competing while injured (Charlesworth & Young, 2004). The social support and social pressure in the culture of sport is a major factor that contributes to

women playing injured and not spending enough time in rehabilitation.

The athletic identity and internal pressures are also influential in female athletes' decision to play through pain and injury. The ability to overcome pain is normalized as part of the athletic identity; thus, athletes expect to feel pain when training and competing (Collinson & Hockey, 2007; Duquin, 1994; Nixon II, 2004; Pike, 2005; Safai, 2003; Young, 2004). Female athletes even develop coping mechanisms and ways to hide their pain from coaches and teammates, because being injured contradicts the characteristic strength and aggression expected of athletes (Charlesworth & Young, 2006; Cockett & Holtan, 2000). There is also a sense of pride in the scars and calluses formed during sports, and in the pain endured while playing and training (Pike & Maguire, 2003).

When injury causes an interruption in sports participation it threatens the athlete's identity, especially catastrophic to athletes whose athletic identity is central to their sense of self. Sportswomen who identify strongly as athletes exhibit symptoms of anxiety, depression, and low self-esteem when their career is interrupted by an event such as injury (Collinson & Hockey, 2007; Thing, 2004). It is very important for injured athletes to feel that others still regard them as athletes while they are recovering. This allows them to 'save face' and retain their athletic identity. A group of injured runners explained how they would dress in their running clothes during rehabilitation. Other runners would, when they noticed the clothes, shout words of encouragement, which confirmed their running identity and helped them stick to their training regimen even though they had no personal connection to those other runners (Collinson & Hockey, 2007).

The athletic identity especially affects women when injury isolates them from the sports social network. Women who define their athleticism as central to their character

feel that being removed from competition compromises their sense of self (Pike & Maguire, 2003; Pike, 2005; Sparkes, 1998; Sparkes et al., 1996). They experience a disrupted identity because they can no longer define themselves as athletes if they are on the sidelines. Furthermore, their new identity is that of an outsider, because their peers are still able to continue with high-level performance (Thing, 2004). The possibility of feeling 'out of face' pushes athletes to continue playing through pain to salvage their sense of self (Pike, 2005).

Identity, and its effect on pain and injury, is also closely tied to athletes' bodies. An athlete relies on her body and physical performance for success in sports, which legitimizes her self worth as an athlete (Collinson & Hockey, 2007; Duquin, 1994). Sportswomen use many physical definitions to describe themselves, showing how central their bodies are to the athletic identity (Theberge, 1997). If that sporting body does not live up to expectations then athletes feel disappointed, and resent their injured body part. They disassociate themselves from the injury, and use language that intimates that the body part, but not them, is injured. Admitting to being an injured and inactive athlete contradicts physical characteristics of the athletic identity such as never backing down from a challenge, being defiant of pain, working through pain, and the willingness to push their bodies to the point of breaking. As this threatens their entire identity, athletes instead distance themselves from the injury and do not accept their new injured body (Charlesworth & Young, 2006; Sparkes & Smith, 2003; Young, 2004).

Denying feeling in pain or being injured is also part of the athletic identity and culture of sport, which obviously has physical consequences (Charlesworth & Young, 2006; Duquin, 1994; Young, 2004). Athletes push themselves beyond the levels of

healthy participation in physical activity to exhaustion and overwork; they completely accept the mentality of 'no pain, no gain' (Charlesworth & Young, 2004; Pike & Maguire, 2003; Pike, 2005). Rowers and wrestlers also engage in physically unhealthy practices, such as bingeing and excess sweating, to meet weight requirements for their sports (Pike & Maguire, 2003; Theberge, 2008). Athletes continuously expose their bodies to risk, because it is an expectation of the culture of sport and part of the athletic identity.

Having an athletic identity and belonging to the culture of sport is beneficial to some athletes; it gives them a strong sense of self, helps them to advance their participation in sports, and encourages them during rehabilitation (Collinson & Hockey, 2007; Donnelly & Young, 1999; Sparkes, 1998; Theberge, 1997, 2008). However, the culture of sport is also termed the culture of risk because sacrifice, risk and tolerance towards pain and injury are an intrinsic part of the culture of sport (Donnelly, 2004; Nixon II, 1994, 2004; Pike & Maguire, 2003; Pike, 2005; Young & White, 1995; Young, 2004). Athletes who strongly identify with the athlete identity that is developed within the framework of this culture tend to ignore pain, play through injury and do not seek adequate medical care (Cockett & Holtan, 2000; Collinson & Hockey, 2007; Pike & Maguire, 2003; Pike, 2005; Safai, 2003). Clearly this denial of pain and reluctance to get help affects injury management, re-injury and secondary injury prevention.

PURPOSE

In order to ensure the continual involvement of women in sport at all levels, issues such as social support in the sporting environment, the culture of sport and risk, the athletic identity, and the effects of these on injury and pain need to be addressed. I explored the effects of injury on academic performance, economic stability, and the decision to continue participating in competitive sport. Psychosocial aspects such as relationships with teammates and friends, social acceptance in athletic and university settings, quality of life, self-perception, body image, depression and anxieties regarding reintegration into the team and return to previous level of competence were investigated. Finally, ongoing medical needs and barriers faced on the road to recovery were considered. I hope that our findings will help target interventions aimed at improving not only these athletes' recovery and return to sport, but also their overall health and quality of life; thus offering a novel contribution to our understanding of secondary injury prevention.

This study focused on the social context within which injury occurred and the experience of injury for female athletes to increase our understanding of both the circumstances that led to injury and the effects of injury on athletes' lives.

RESEARCH QUESTION

What is the social context of injury in female athletes and how does that affect female athletes both socially and psychologically?

METHODOLOGY

Qualitative methodologies have gained popularity in health research as a way to further the profundity of our understanding of people's overall experience of health and illness within a social setting. It provides an in-depth answer to the questions how and why individuals are affected by different circumstances, rather than how many people or what dosage is needed. This approach acknowledges that people experience situations each in their own inimitable way, and that part of health care is helping people to cope. Qualitative research aims to gather data that can inform future improvements to health care by mitigating the overall effects of illness and injury rather than just treating the symptoms (Côté-Arsenault & Morrison-Beedy, 2005; Mays & Pope, 2000; Pope & Mays, 1995; Wilkinson, 1998a). I am researching how injury affects female athletes both socially and psychologically therefore qualitative methods are a more appropriate approach.

Reflexivity is an important component of conducting qualitative research as it justifies the use of particular methods and methodology as well as explaining how the data analysis is conducted (Carter & Little, 2007; Doucet & Mauthner, 2006; Finlay, 2002). A discussion of reflexivity elucidates the researcher's thought process throughout the research and serves to position the researcher within the study. It acknowledges that the researcher's connection to the research influences the analysis, and allows the reader to make a judgement of the data with an understanding of that relationship. A clear explanation of the decisions made also holds the researcher accountable for the knowledge produced (Doucet & Mauthner, 2006).

Reflexivity should be included at every stage of the research from selecting a

methodology to data collection and analysis (Carter & Little, 2007; Finlay, 2002). It is even important in the discussion of why the researcher chose that particular research and how they are positioned in relation to a participant (Dwyer & Buckle, 2009; Finlay, 2002; Wilkinson, 1998a). My interest in studying injured female athletes was due to personal experience both as a child and later as an adult. It was impossible to fully separate my own experience of injury from my research, and indeed I chose instead to share a pivotal experience with my readers to clarify how I related to the research. My understanding of the research also changed throughout the project, highlighting the importance of constantly engaging in reflexive thinking (Finlay, 2002).

Finding the methodology most appropriate for a particular research question in qualitative research is an exercise in reflexivity, and as the researcher better understands the issues it can be apparent that a different methodology might better fit the data (Carter & Little, 2007; Sandelowski, 1993; Wright, 1995). Analyzing the data from a pilot interview helped to inform my decisions regarding methodology, although the data itself was not included in this study. In addition, after completing my literature review, I felt that identity construction and the socialization of athletes into the culture of sport were extremely important to athletes' attitudes towards injury and recovery. There are social implications to injury and differences in the ways that athletes interact with other athletes when they are injured (Collinson & Hockey, 2007; Sparkes & Smith, 2003; Sparkes, 1998). I was fascinated by how the athletic identity affected injury, reaction to injury and recovery, and how injury affected athletes psychologically and socially (Budgeon, 2003; Duquin, 1994; Malcom, 2006; Pike & Maguire, 2003; Pike, 2005). This became the driving focus of my research and I wanted to frame my research using a methodology

that would help capture these social and psychological aspects of injury. This led to my choice of social constructivism.

The social constructivism paradigm explains the way in which people construct reality and identity through social interactions. It emphasizes issues such as the effects of culture and social interaction on identity construction, and how people are affected by that identity. Social constructivism allowed me to produce data that focused on the social context of injury and the psychosocial effects of injury on female athletes, which made it an appropriate choice of methodology (Palincsar, 1998). The development of the athletic identity and its effects on injury, barriers to recovery, and prevention of re-injury and the effects of injury on well-being and body image were explored in relation to this socially constructed identity. Social constructivism was also used for the analysis of the transcript, because it provided a framework for analyzing the effects of the athletic identity on injury and understanding the particular struggles faced by female athletes during recovery from sports injury.

I also wanted the method of data collection to reflect my goal of exploring the understanding of the social context of injury and the psychosocial effects of injury on female athletes. When the aim of the research is to study the framework in which an experience occurs, it is important to choose a method of data collection that enables the researcher to observe that social environment (Wilkinson, 1998a). Interviews did not provide me with an avenue through which I could observe the social interactions of injured athletes, although I would still be able to ask participants about their feelings and attitudes towards the social support and network within the sport culture. With that in mind, I began to consider data collection methods that allow me to observe athletes'

communications with each other such as ethnography and focus groups. The method needed to include group dynamics so that I would be able to observe the social interaction between injured athletes first hand to study how they, in a context where other athletes reaffirmed their athletic identity, discussed the psychosocial effects of injury and the barriers to recovery. Focus groups provided me with a window into those types of exchanges, and allowed me to be a part of the collaborative process (Wilkinson, 1998a, 1998b). In focus groups it is possible to guide discussion to cover the important topics, while facilitating the sharing of ideas between participants (Côté-Arsenault & Morrison-Beedy, 2005; Wilkinson, 1998a, 1998b). And thus I arrived at my decision to use focus groups as the primary form of data collection, supplemented by interviews when a more in-depth analysis was needed or a participant could not attend any of the focus groups.

Qualitative research that employ focus groups are used extensively in health research (Côté-Arsenault & Morrison-Beedy, 2005; Linhorst, 2002; Wilkinson, 1998b). The social interaction between participants and with the facilitator, in a safe and open-minded environment, creates an atmosphere conducive to rich data collection. Focus groups provided a forum for me to engage with and to observe athletes discussing injuries with each other to co-construct knowledge. I gathered information on the language used, the ways that athletes referred to injury and to their bodies, and how this affected athletes psychologically and socially when they are injured. Participants of focus groups receive support from people in similar situations, and often report high levels of satisfaction (Côté-Arsenault & Morrison-Beedy, 2005). I was particularly concerned with benefitting the group that I was studying in a more direct and tangible way in addition to creating new knowledge. Thus, I believe that focus groups met both my needs as a researcher, and

aided the participants in obtaining much needed support on their road to recovery and return to sport.

For my Masters thesis I conducted two focus groups each with fewer than five athletes and one interview to explore how injury affected female athletes. There were a total of six participants, ranging in age from eighteen to twenty-eight, and the sports in which they competed were basketball, hockey, rugby, tennis, and tri-athletics. Issues such as time away from sport, well-being, sense of self, academic achievement, social relationships, employment and secondary injury prevention were analyzed using the social constructivism theory, a paradigm used in qualitative methodology.

Before recruiting participants, I had to decide who was considered an athlete and what it meant to be injured. Young adults were an accessible population that were more likely to be found in elite levels of sports, so practicality dictated that the age of the population was 18-35. Participants had to both identify and be identifiable as athletes, necessitating that they were playing at a level of competition at which sport took up much of their time and comprised a big part of their self-image. It was important that they were fully immersed in the social culture surrounding sports with an understanding of the expectations within that culture. The commitment to sports and hours spent in training particular to university and higher-level athletes ensured that these women were indeed athletes who were involved in and understood the culture of sport. All of the athletes in the study were current university athletes except for one woman who had played for university in the past and had also competed in international competition.

Initially, I wanted to recruit only athletes with an injury severe enough that it required them to miss at least half a season. Realizing that it was more important to

discover how athletes defined injury and worrying that I would not get enough participants, I simply put the word injury on the posters without specifying type or severity. Interestingly, all the athletes who self identified as injured and asked to participate had been forced to miss at least half a season with injury, and many of them had missed much more time.

To recruit participants, I emailed the coaches of all female teams competing in Canadian Interuniversity Sport for York University and the University of Toronto and requested an audience with each team before or after practice. I also posted recruitment posters in the athletic centre and around campus at York University. An example of the recruitment poster and email are found in Appendix D and E respectively. I explained my research to the players and left flyers with a brief explanation and my contact information, but after meeting with one team I realized that recruiting players from practice was not a feasible option. Injured players often did not stay after practice and players would not think to contact me once they sustained an injury. Instead I sought help from the athletic clinic who were extremely helpful in referring injured players to me, and allowed me to post flyers on the board outside the clinic. Athletes at the University of Toronto were recruited directly by coaches who emailed or told injured players about my research. No information was given to the clinic or coaches about which players participated. Participants were also recruited through word of mouth.

I made sure that athletes from the same team did not participate in the same focus group to limit the pressure that players may have felt to downplay their injury in front of teammates. Athletes from the same team who were jockeying amongst each other for playing time and recognition were unlikely to show any weakness and vulnerability, and I

was asking them to share exactly that with regards to injury. They may have been reticent to admit to pain or self-doubt in front of teammates to whom they projected an image of strength, and that would have changed the dialogue and the data collected. It proved to be an important decision because an athlete specifically mentioned that she would not have shared some of what she had said with her teammates. I also hoped that some of the positive sense of belonging constructed by the sports social network was generated between the athletes in the focus groups because of their common experience. By removing players with whom they competed, and introducing them to other athletes in a similar perhaps vulnerable situation, I hoped to both provide social support for the participants and further my research.

Initially, I did not plan to disclose my sporting experience to participants to minimize any pressure that athletes might have felt if they viewed me as a member of the culture of sport who upheld the values of playing through pain and injury. But a coach who knew me disclosed my previous sporting experience in the recruitment email that he wrote to his athletes. In order to keep the research uniform I added the information he used in all subsequent recruitment emails, and the participants of both focus groups and the interview knew of my connection to sports before we began. I was worried that athletes would be reluctant to admit to weakness and discuss their injuries with someone who they saw as an insider in the culture of sport, but it actually had the opposite affect. Athletes viewed overworking themselves and pushing their body to the limit as a badge of honour that they were excited to share with me as an insider. They fully realized that injury was a part of sport, and that outsiders to the culture of sport thought that the sacrifices and commitments that they made to sports were unreasonable. As a fellow

insider they knew that I shared their enthusiasm for playing and had made similar decisions regarding sports, albeit several years ago. Although it was not my original idea, I think that my positioning as an insider was positive for the co-construction of data in the focus groups and interview. Also, being situated as an insider or outsider was less imperative than reflecting on the effect that this had on the participants and the researcher, which is something that I continued to do throughout the project (Dwyer & Buckle, 2009).

I had never facilitated a focus group before so in preparation I asked for advice from my supervisor Dr. Macpherson and second reader Dr. Nakamura both of who had previously facilitated focus groups. They explained many practical considerations such as if I was to provide a snack, it should be quiet to eat so as not to interfere with the recording. They guided my reading to examine previous focus groups in health care settings, and helped me book appropriately sized rooms at the university when needed. I also had the opportunity to be a participant in a focus group for a colleague's research, which helped build my confidence and understanding of how to run small focus groups for research.

Before beginning to record each focus group or interview, I explained the confidentiality and consent forms, samples of which are found in Appendix B, and all athletes who participated signed a consent form. In the one Skype interview that I conducted we also reviewed the confidentiality and consent forms together, and she read and returned them signed as a PDF file prior to starting the recording. The consent and confidentiality forms stated the purpose of the research, what was required of the participants, and the risks and benefits of participation. Also outlined in the forms were

the terms of voluntary participation and withdrawal from the study as well as an explanation of confidentiality. As seen in Appendix B, there were variations in the forms for the focus groups and the interview because the focus group included an extra statement regarding privacy in focus groups. Participants were asked to respect the privacy of their fellow participants and not to repeat anything discussed in the focus group. Due to the nature of focus groups confidentiality could not be fully assured by the researcher without the cooperation of all participants. It was important that athletes felt that their privacy was fully respected by both me and the other participants.

Although none of the subjects refused to be audio recorded or withdrew from the study, I had to be prepared for those possibilities. Had athletes declined to be audio recorded before the start of the focus group, I would have suggested that they withdraw. It was important to audio record the discussion because I felt that I could not take extensive enough field notes to capture all the important data in the focus group while facilitating. I did take field notes but they were more to help me guide the discussion as it unfolded, and to remind myself of points that I felt were particularly important for when I transcribed the conversation. In the event that an athlete withdrew from the study after participating in the focus group, I explained to the participants that I would have deleted everything that they said from the written transcript but not the other athletes' responses to them. The audio recordings would only be destroyed at the completion of my masters but throughout that time no one else would have access to those recordings and they were locked in a separate location. Based on these guidelines research approval was obtained from both York University and the University of Toronto.

When reviewing confidentiality and ethics with the participants, I explained my

interest in listening to and learning from each athlete's individual experience. I also stressed the second goal of this project, which was to allow athletes to draw support and an understanding of injury and recovery from each other. I hope that this explanation as well as my overall manner helped to establish the atmosphere of respect and trust that was needed for a successful focus group, thus allowing me, along with the participants, to co-produce knowledge about the social and psychological effects of injury on female athletes. A sample outline of the questions asked in the focus groups and interview can be found in Appendix C.

Although I had never organized a focus group before, as a teacher I had guided classroom discussions with high school students of a personal and provocative nature that sometimes escalated into impassioned debates. I often rearranged the classroom for those debates so that students were facing each other, encircling the room, and I was no longer at the front lecturing to them. A similar set up for the focus groups to inspire confidence and a feeling of equality amongst the participants and me worked well. The data constructed in focus groups are dependent on setting participants at ease and inspiring the confidence that sharing their narrative will be a positive experience that is well received in a non-judgmental, safe environment (Côté-Arsenault & Morrison-Beedy, 2005). It ideally was also to be an informal setting to create a relaxed and accepting atmosphere, which was easy to organize at York University. We took a small classroom, which I rearranged in advance, setting a small table surrounded by several chairs in one corner. For my second focus group I booked a boardroom near the University of Toronto, and I felt that the room was a bit too formal and intimidating. I began all focus groups with some friendly informal chatter, which I hope mitigated any formality created by the

boardroom atmosphere in the second focus group.

It was essential that we all sat close together around a table so that the digital audio recorders picked up the whole conversation. In the first focus group the table was indeed very small and we all sat around that one table. In the boardroom for my second focus group the table was a bit bigger and I was worried about the quality of the recording. I asked the participants to move closer and sit around one corner of the table, and the quality of the recording was excellent. Sitting closer together also helped create a feeling of intimacy and confidence. Injury is a very personal and emotional topic for many athletes, and I did not want any athlete to feel that her injury was being taken lightly or was less important than another athlete's injury. It was important to me that the athletes felt that they were significant as athletes, women and research collaborators, and that their injury was regarded as a serious concern.

For the Skype interview, distance made the athlete's physical environment beyond my control, but I made sure to sit in a silent room where I would be undisturbed for the duration of the interview. I began the interview with the same informal chat questions that I had set for the focus groups, and I also asked the identical set of questions. The same underlying themes emerged from the interview as were obtained from the data in the focus groups.

For both focus groups I used two recording devices to have a backup in case of technical failure, and the backup was erased as soon as the primary recording was downloaded to my computer, checked and found to be of sufficient quality for transcription. In the second focus group with a slightly larger table, I placed the recording devices at different ends of the table in order to fully capture the whole conversation.

This proved to be unnecessary because the recording from the primary device was clear. The Skype interview was recorded directly to my computer so a backup was not needed.

I wrote limited field notes during the focus groups and interview, enough to remind me of important points in the discussion without distracting the participants or myself. Conversation flowed easily while the audio recorder was on but people tended to change the way they talked if they felt I was writing down what they were saying. I wanted them to feel comfortable sharing their experiences openly so I limited my writing as much as possible. Also, I wanted to be actively involved in guiding the direction of the discussion to facilitate data collection, and this was easier for me when I was paying full attention to the conversation rather than writing. I knew that it would not be difficult to distinguish those particular voices on the recorder so I did not need to note the speakers.

I transcribed the audio recording onto my computer by hand, typing as I listened to the recording. Initially, I had decided to transcribe the data using a method where a time stamp is attached to my understanding of the general gist of each relevant conversation within the sessions. Typing would have been quicker with this method and the time stamps would have enabled me to go back and transcribe quotes verbatim. I did not end up using this method because a program called Garage Band allowed me to slow down the recording to a speed that made it easier for me to type and listen simultaneously, rewind and listen again to make corrections. I preferred to have the whole transcript verbatim since it made it easier to understand the coded segments and to extract quotes without returning to listen to the audio recording.

The typed transcript was then uploaded to NVivo™, software designed to help in the analysis of qualitative research. I coded the data line by line in NVivo and then went back

and combined similar codes by merging them. NVivo separated the coded sections into separate documents, marking from which transcript each segment came, as well as what number reference it was within the transcript. It was numbered according to where it had appeared in the transcript making it easy to look back at the original transcript for further context when needed. I added a colour to each category and the colours could then be applied to the original transcript to see where all the codes appeared.

My understanding of the data was further developed throughout the analysis, and the Nvivo program had functions that allowed for codes to be merged, unmerged, renamed and edited reflecting these changes. Combining the data in this organized manner helped me to see the themes emerging from the data to that I could appreciate some of the psychosocial problems faced by injured female athletes. To keep track of the flow of my thoughts, I combined codes as subheadings so that the original code headings were still saved. The PDF files from Nvivo were then saved, numbered and lettered to show which subheadings belonged in which theme. For example, the theme ‘identity’ is numbered ‘3’ and the first subheading in that theme, ‘body image and body talk’, is numbered ‘3a’. A full chart of the themes and codes are found in Appendix F.

I began the initial coding of each transcript as soon as possible after completing the focus group or interview to ensure that my impression of the data and participants was fresh in my mind while coding. After reading the first transcript I came up with some codes that seemed to encompass much of the data. My original codes loosely corresponded to the questions that I asked, because all the participants discussed those topics at length. The first sets of codes that eventually evolved to include other subtopics or were themselves made into a subtopic were *background*, *identity*, *injury description*,

pressure to play, sex differences and social support.

Through analyzing and re-analyzing the data I realized that much of the first transcript did not fit under those headings, and I made new codes. *Injury description* was expanded into *injury description and talk*, *injury severity realization or admission* and *body image and body talk*, because the many nuances in the discussion of injury were each relevant to a different aspect of athletes' reaction to injury. *Social support* was renamed as *support people and social support*, since it became apparent that who was providing the care was also significant. *Body image and body talk*, *awareness of injury in others* and *support within focus group* also emerged as codes from the data, and each appeared to be independently important of the other codes.

Body image and body talk made reference to the injured body and how comfortable or uncomfortable athletes felt with their injured body, which was essential to the research. The heightened sensitivity felt by injured athletes towards other people with injury, captured in *awareness of injury in others*, was interesting and deserved mention. Also, I was glad to observe instances where athletes supported each other within the focus group, and I felt it was important to highlight those occurrences under the code *support within focus group* to confirm the benefits of focus groups. It was especially important to me that athletes gained positive support and encouragement from participation in a focus group.

I knew that there would be changes to the coding after analyzing the next transcripts, and I intended to revisit the coding of the first transcript after the others were complete. There was enough time between each session that I was able to transcribe and code one transcript before facilitating the next focus group or interview, which was very helpful to

me. Even though it meant constantly revisiting and revising the codes, it also gave me the opportunity to transcribe and code each transcript while I still remembered the flow of conversation. It is important to mention that my memory and my impression of the discussion and the participants' narratives reflected only my version of the data. Any other person who analyzed the data or attended the focus group would have had a different opinion of what was significant in the dialogue and which themes emerged from the data. As such the qualitative analysis was an interpretation based on my understanding and reflexivity throughout the project (Carter & Little, 2007).

After coding the second transcript I added *barriers, and regret and self blame* and *why is this happening to me*. During the conversation, we entered into a new topic that I had not previously considered, specifically, the extent to which athletes felt responsible for making decisions that led to injury. When I reviewed the first transcript I realized that the athletes in the first focus group had also mentioned regret and self-blame many times. I coded those segments and they automatically appeared in the Nvivo document under the heading *barriers, and regret and self blame*. Reviewing the transcripts again made it apparent that money and time were both issues for competitive athletes who often had limited time to compete due to age, stage of life, and needing to work, and so I added the code *money and time in eligibility, playing and life*. I reviewed both transcripts many times to make sure that every statement was coded under the headings to which it belonged.

Analysis of the third transcript did not drastically change the coding but I renamed *background* as *background and miscellaneous* to include information that did not initially fit anywhere else. I also made two headings that encompassed many of the codes after

analyzing and reanalyzing all of the data. *Barriers and attitude* became the theme that included the codes *barriers*, *regret and self blame*, *money and time in eligibility playing and life*, *pressure to play* and *why is this happening to me*. *Injury understanding* encompassed *injury description and talk* as well as *injury severity realization or admission*. On further analysis I realized that *pressure to play* was a central theme rather than a code so although it remained saved under *barriers and attitudes*, I considered it to be an important theme in my research. The pressure to play was undoubtedly a barrier to recovery and indeed at times even led to further injury. It was so essential in athletes' accounts of injury and recovery that I renamed the theme *pressure to play and other barriers*.

The culture of sport did not emerge as a code in the data, because athletes did not directly mention ascribing to a particular culture. Rather it appeared throughout the conversation in the social benefits of being involved in sports, in the way that injury was perceived, in how athletes defined themselves, in how they related to their bodies, in who they turned to for advice and in the context in which injury occurred. The culture of sport was the framework for the athletic identity, and it established the pressure to play while injured keenly felt by athletes. That same culture made athletes question their identity and self-worth once they were injured, and fostered doubt about bodily perfection. The culture of sport was clearly a critical theme.

Once all the codes and themes were determined, the data needed to be organized into logical sections that were consistent with the methodology. The social constructivism paradigm discussed the importance of socialization on the development of identity, and the effects that adopting a particular identity had on a person (Palincsar, 1998). Using that

understanding, I structured the analysis according to the formation of the athletic identity, the effect that the athletic identity had on athletes' perceptions regarding pain and injury, and the manner in which injury affected athletes. The sections were named 'Pre-Injury: Becoming an Athlete – Identity Development and the Culture of Sport', 'Becoming Injured: Ignoring Injury and Normalization of Pain' and 'Recovering from Injury: Re-evaluation of Injury and Its Causes'.

The interpretation, and indeed construction of qualitative data is dependent on the individual who is examining that data as well as their previous experiences with the topic, with data analysis and generally in life (Bucholtz, 2000; Carter & Little, 2007; Côté, Salmela, Baria, & Russell, 1993; Smith & Sparkes, 2005; Wilkinson, 1998a). The same person would probably even understand the data differently at another stage of their life. That is not to say that the data constructed in qualitative research is less valid in any way, but rather that full disclosure of the researcher's positioning in the research is an important part of the manuscript (Bucholtz, 2000; Carter & Little, 2007; Côté et al., 1993; Smith & Sparkes, 2005; Wilkinson, 1998a). Due to their unique interpretation of the data, researchers themselves are a form of research tool, and their approach to and decisions regarding the research should be clearly explained so that anyone may judge them as an instrument in the research (Sofaer, 2002).

Throughout the introduction and methodology I attempted to explain everything about myself that I felt was important for the readers to know in order that they may properly assess my results and conclusions. I disclosed an important experience in my life that influenced my decision to conduct this research. The reader was included in the journey that led me to the selection of the social constructivism methodology. I explained

the development of my codes and themes throughout the processes of transcription and analysis and my reflexivity while investigating the social context of injury and its effects on female athletes. I hope that the reader understands enough of myself to make sense of my decisions regarding the methods, framework and lens through which the data was co-constructed together with the participants in the focus groups and interview.

ANALYSIS

Pre-Injury: Becoming an Athlete – Identity Development and the Culture of Sport

There were six participants in total between the ages of eighteen and twenty-eight, and the sports they played were basketball, hockey, rugby, tennis and tri-athletics. Before these athletes experienced injury and recovery, prior too to the identity crisis that injury inflicted, and indeed preceding even the injury itself, was the context in which the injury occurred. To be an injured athlete, you had to have been an athlete first, and that identity was set long before playing in an elite level game. The process of becoming an athlete began with initiation into the culture of sport, the framework that governed how some girls grew up to think, talk and act as athletes.

There was a great deal of background that led to being an athlete, which set the stage for athletes' reactions to injury and recovery. Beginning at a much earlier age and lower level of sport, there was pressure to play through pain that became part of the athletes' expectations for sport. Also, most of the athletes explained being involved in sport from such a young age that they could not remember a time before sport was an important part of their life and identity. They were willing to pursue sport even though it often meant

sacrificing important obligations to family and friends. It often became difficult to sustain close friendships and relationships outside of sport, drawing them closer to people in the sporting world, which further established them in the culture of sport. Their friends from within the culture of sport also ascribed to the ideas of playing through pain and sacrificing other commitments for sport, and that shared understanding both validated those choices and further confirmed their identity as an athlete.

The pressure to play with pain was the component of the culture of sport that perhaps most affected injury. Initiation into the culture of sport came with the expectation to play through pain even at non-competitive levels of sport. Bea recounted an instance in high school when she could barely rotate her wrist after a fall and her coach “didn’t want me going to the hospital... cuz she wanted me to play,” so instead she played with a tightly wrapped wrist for the continuation of the game (Bea, October 2013). Regardless of the level of competition, this pressure to play seemed to increase when athletes’ role on the team was viewed as crucial to their team’s success. Kara explained a situation where staff from her team suggested that she rehabilitate post surgery while travelling with and competing for her team even though she was not yet cleared to play. Her team statistics that year had been fantastic (Kara, November 2013). Mia explained that in high school the mentality on her team was that certain players were necessary for the team to win, and as one of those players she felt so much pressure to play that she played an entire season injured (Mia, November 2013). These athletes felt obligated to keep playing at all costs, which contributed to their acceptance of one of the major tenets of the culture of sport, playing through pain.

Players in individual and team sports also reported some differences in how the

culture of sport exerted the pressure to play through pain. In team sports, teammates, often meaning to be encouraging, denied any doubt that athletes could and should return to the team to play with the same level of skill and intensity. This assumption made athletes feel as if they had no other option. Athletes in individual sports explained that it was competition with training partners and within the team for position and ranking that created the pressure to play through pain. Players from both team and individual sports mentioned teammates, training partners and the self-pressure to keep up and continue to compete as contributing strongly to the pressure to play. Essentially, initiation into the culture of sport in both individual and team sports meant an acceptance of playing with pain.

Another critical criterion for inclusion into the culture of sport was undertaking the rigorous training schedule necessary for development of the proper skills and fitness, an all-encompassing lifestyle that came with a set of commitments and goals different to those of their non-athletic peers. Leigh explained that, “Most of my non-sport friends think that I’m just crazy. Like they actually do. Maybe there is a part of that. Yeah they do, they just can’t relate and they don’t understand. And they do get offended when you put your workouts ahead of them (Leigh, November 2013).” Prioritizing sport and the many hours of training it entailed made it difficult to sustain close friendships and relationships outside of sport.

All the athletes mentioned sacrificing social interactions in order to stay on task and compete. Mia and Leigh discussed the strain on previous romantic relationships caused by their training schedules. Leigh said, “I also think that it (training all the time) may have affected my previous romantic relationship that I had (2013).” A common complaint

from Mia's boyfriend was that he was pencilled in only after school and sports. "He said that you have all this stuff to do; school, (sport), friends and then it's like you pencil me in last where there's space. And as much as I hate to say it he's right cuz I did schedule him around (my sport) because that's really important (2013)." Kara said that missing out on important family events was a difficult sacrifice she had to make for her sport. "That was the hard part for me I think is that it was always a privilege to play but there were a lot of sacrifices. And you miss things. It doesn't matter if you have your parents 50th anniversary you might have to miss it cuz you're away (2013)." Bea explained that once she started competing at university she hardly saw her other friends, and that set her apart from them. "For a while I was on the team and then I had other friends on campus here but because I wasn't always with them I was out of the loop (2013)."

As the level of competition increased so did time spent training, making athletes more likely to be closer to people within the culture of sport with similar lifestyles. Kara considered the friends she had made through sport to be friends for life. Bea stressed the importance of getting closer to her teammates and how it made her feel more confident with her place on the team. In jest Emma chided the other women in the group that they should all date athletes who were similarly committed to rigorous training schedules. "Girls you're doing it wrong. I've never not dated an athlete (Emma, November 2013)." She went on to explain more seriously the positives of being with someone who understood that sport came first, and some of the negatives too, such as missing each other's big games when both of them played at the same time.

Overall, friendships and relationships built through sports were based on shared interests and experiences, and provided strong support for female athletes. Reanne said

that in high school she had felt out of place and was the nerdy one, finally finding acceptance at university with teammates who had become her closest friends. Bea and Kara both spoke about the opportunities that sports had given them, how it helped them navigate new situations and make new friends. Athletes felt connected to the friends with whom they trained and competed, and that was certainly a positive outcome of being involved in sports. Nonetheless, for many athletes the intimacy that they felt with teammates came at the cost of being more distant with people outside of sports.

There was certainly an element of sacrificing life outside of the parameters of sport, and a narrowing of social circles and interests. Mia described living at university with friends who were not athletes, and missing out on most of the late night and weekend fun. She needed to be up extremely early in the morning and was often away on weekends competing, which made her feel like she missed out on other aspects of the university experience. Leigh expressed the same sentiment, explaining that as a graduate student, her priorities had shifted to less of an athletic focus and she was discovering a world that she had missed up until then. Kara was fully aware that she had sacrificed time with her family to advance her opportunities in sport, and she felt that it was worthwhile. Eventually sport had become the focal point of all the athletes' existence at the cost of other life experiences and commitments, which although not necessarily negative was certainly limiting to other aspects of athletes' lives.

Conversation about being absorbed into the world of sports centred on the reality that athletes had less time to be involved with anything outside of sports, and in addition had limited time in sport. Timing was a deciding factor for making arrangements with friends, coursework at university, jobs, and even for being on a team. Athletes measured time by

the way that it related to their sport. In the majority of sports there were only five years of eligibility for university athletes, and two of the athletes intended to use all of their years of eligibility even if it meant staying at university longer. One of the women explained that in her sport there were no limits on years of eligibility at university, so some of her teammates remained students even after playing for four years in the USA. She would not choose that route because of the expense and the time that it would take away from her non-sport career. Most of the women said that after playing at university they would no longer have the time or opportunity to continue playing at an elite level. For most athletes those years were the pinnacle of their career, and they were willing to give everything that they had to make those years a success.

Time had a different meaning for the one athlete in the study who had continued to play at more elite levels after university. She had been less concerned of making the most of her university eligibility years, because she had already been playing at a higher level by then. Time was more of a factor in the timing of injuries before big competitions, and the time spent away from family and friends while she was competing. Prior to her career ending injuries, sport was her full time career as well as her social life, and she was fully committed to spending as much time as needed to excel.

Ultimately the women in this study chose to pursue sports at an elite level that fully immersed them in the culture of sport, and once their goal was achieved they identified themselves primarily as athletes. And although personal desire influenced their decision to strive for elite competition in the first place, the culture of sport further nurtured and developed that identity. Sacrificing your body to play through pain and social opportunities such as time spent with significant others, friends and family for more time

spent in training and competition were standards prescribed by the culture of sport. The more that athletes were instilled with the ideals of the culture of sport, the stronger their affinity to their athletic identity.

I recruited injured female athletes for the study, and every participant classified herself as an athlete and as female. And there were commonalities in the meaning of both of these identities to the participants. Being an athlete meant committing yourself and your time to sport, and putting the team ahead of your social life and often even before school obligations. It also meant complying with the rigors, both physical and mental of training and competition. They discussed the female identity only relative to being an athlete, never fully separating that feminine identity that sometimes conflicted with the demands of being an athlete. Both the athletic and female identities together comprised who they were, even when those identities were at odds with one another. Two of the athletes mentioned that people often commented on the amount of food that they consumed because they ate much more than their non-athlete girlfriends. People were surprised that women could eat that much, and also impressed that they were able to maintain a trim figure. It was normal for athletes to eat that much but out of the ordinary for women, a conflict of their two identities.

Women reported being satisfied with their bodies before they were injured, or at the very least not noticing anything wrong with their bodies. Reanne explained that after injury, “You don’t look as toned, and you don’t have the same figure that you had when you were playing. Like, I don’t know where my six-pack went. It’s in there somewhere (2013).” Athletes took pride in their muscle definition and toned bodies, which were required for their sport. They were confident in their female bodies too, and several

women mentioned never having to worry about weight before being injured. As Bea said, “I gained twenty last year like all of a sudden like I never, I would always eat a lot. Like my friends and I would always joke at how much we could eat and never gain weight but because I couldn’t work out, that stayed, right (2013).” The majority of the participants played sports not considered typical female sports where strength and size were valuable assets, and they did not perceive being strong as contrary to the feminine ideal.

Identity was also based on their perception of how other people viewed them. Athletes mentioned that other students were impressed by their varsity team status regardless of whether the sport was considered a typical female sport. Two athletes joked that everyone assumed that they were volleyball or soccer players, these sports currently being more associated with women in Canada, but that the reaction had always been positive when they revealed their actual sport. Kara explained that everyone from her town knew her as an athlete, and similarly Reanne said that at university she was known as one of the team. Most of the athletes did not express any concern about the way other people viewed them except in the case of injury. The athletic and female identities were sharply questioned in the case of injury.

Becoming Injured: Ignoring Injury and Normalization of Pain

A major tenet of the culture of sport was to play through pain and sacrifice everything for sports. And what did that mean to an injured athlete who could no longer physically uphold that ideal? The entire foundation of her athletic identity was shaky because she could no longer perform as expected, and in addition her femininity was questioned. Being injured altered the way that an athlete saw herself and her body; indeed

it changed her body from a high performance machine into something that needed management and care. No matter the mental toughness and amount of pain that she was willing to ignore, the athlete could not will her body into being uninjured, and yet she still tried to play through the pain of injury. That pressure to play at any cost was ingrained in her athletic identity and reinforced by the people close to her, who were themselves involved in the culture of sport. Even attempts to support that athlete sometimes resulted, unintentionally, in further stressing their obligation to return to play as quickly as possible. The athlete's obvious response was disappointment in herself and her body, and a recognition that the injury was severe enough to beat her desire to play at least for the time being.

The most telling account of the implications of injury on a female athlete's identity was an athlete's description of a set of injuries that forced her to reconsider her future as an athlete. Kara explained that sports, "at that point in my life was the most important thing... was sort of something that I think at the time defined me." And the disruption to her life caused by injury left her feeling, "Absolutely devastated. I was deflated. I had basically felt like I had thrown away... years of my life to go after something that I wanted more than anything (2013)." After her injuries Kara had to redefine the nature of her identity, which up until then was closely aligned with her athleticism.

Kara was extremely distressed, her entire identity was threatened, but in one pivotal moment she changed the way she viewed herself and her injury. She was confronted with the reality of an acquaintance who would never walk again, and it shifted her whole outlook. Suddenly her injury seemed insignificant, and she realized that her entire future lay ahead even if it would be a future without sports. She was determined to continue

working at her recovery diligently, but to also invest in other aspects of her life. Athlete was no longer Kara's sole identity, but rather one facet of a broader identity.

The identity crisis she experienced due to injury was mentioned by many of the athletes, some of whom were apprehensive about their future in sports and others who were worried whether they would retain the same status or ranking. The timing of Bea's injury precluded her from the team roster, an upsetting consequence that left her uncertain of her future with the team and her position socially with her teammates. Bea explained that she was new to the team and as yet unsure of her relationship with her teammates. The injury, and consequently being cut from the team set her adrift. After a month of intense training requiring she spend much of her time her teammates, she lost her insider status and returned to the friends on campus who were not involved with the team. She said, "When I wasn't able to be with the team anymore coming back to my friends was like, that was a little awkward. It was like we haven't seen you in a month and you show up kind of thing (2013)." Her participation in sport had taken up so much time that it limited her socializing opportunities and made it less plausible to have friends outside of the culture of sport. Sustaining an injury removed her from the team and acceptance into the culture of sport, forcing her to rebuild former friendships.

A poignant description of the effect of injury on a female athlete's identity was Reanne's narrative of her reaction to injury; an injury that caused her to miss a whole sports season. During that year she was uncomfortable answering questions about what position she played because she had not played in so long.

And then the whole last year when people were like oh what position in ____ do you play? ...In the back of my head I was like I haven't played in a year... I had a

huge identity crisis because I was like what are people going to think of me if I don't play ____ anymore. I have always been the ____ player – for *the* last ten years since I started playing (Reanne, 2013).

Reanne felt that it was incorrect to say that she was an athlete because she had not played in so long and possibly her injury would prevent her from returning to sports at all. And the thought that she may never play again left her anxious about not only herself as an athlete but her relationships with teammates whom she considered to be her closest friends. She was worried what they would think and whether she would be as close to them.

Reanne had been a starter since she was a freshman, and missing out on the camaraderie of playing on that line had already made her feel excluded and as if she was an outsider. In fact, Reanne explained that her decision to go back was based partly on her love of the game and desire to return, but mostly on what she felt were others' expectations. "I think if I had to weigh it out in a percentage, 'I wanted to' probably accounted for forty percent and sixty percent would have been because I think I was expected to and everyone was like (name) you're playing this year (2013)." Her identity and self-perception were so completely tied to her sport that it was inconceivable to admit that injury had made her reconsider her body's limits, and diminished her desire to risk herself at any cost for the team.

Injury had prevented Leigh from entering a competition that her training partner, who had approximately equal athletic ability to her, then won. Although excited for her friend, she had been so frustrated and upset that she had stopped looking at coverage of the competition. Leigh said that looking back, she was probably depressed after

sustaining her injury. “Oh it was terrible. I was depressed like for sure. Yeah and self-perception I guess I just felt like I didn’t know who I was. Like I didn’t. I had so much time in the day suddenly. Just to do. I didn’t even know what to do (2013).” She felt displaced, not sure what to do with the extra time now not spent in training. Injury caused her to question the nature of her identity because she was not actively competing as a high performance athlete.

Excepting injury, not only did Leigh feel she would have had an equal chance at winning, but she also explained the negative effects on her current training and attitude. For every week spent resting she needed approximately three weeks of rehabilitation to attempt to reach the same levels of fitness. She had eventually returned in full strength, but Leigh admitted that she approached her sport with more caution. Having been injured made the risks more tangible, and that knowledge affected her performance. The injury changed her self-perception, and reduced her confidence in her abilities to perform the same tasks without sustaining another injury.

The implications of injury were often more subtle than the abrupt disruption to the athletic identity experienced by Kara, Bea, Reanne and Leigh. Injury did not necessarily cause a re-evaluation of the athletic identity, but it did make athletes question their position within their team. Mia was a vice captain, a position reserved for leaders both on and off the field, yet being injured made her feel inconsequential to the team’s success. Her team had struggled while she was playing yet after her injury they won most of their remaining games, making her feel frustrated and as if she did not count. “I felt just really down because it’s like, I felt like I didn’t, I’m not really that valuable because now they’re winning and I don’t get to be there and like I was such a big part of the team

(2013).” Although her identity as an athlete was not threatened, her perception of her value to the team was certainly affected.

Emma participated in an individual sport so in addition to being captain, she was ranked within the team. Injury caused her to miss part of the competition that determined that ranking, and she wondered if other players questioned her coach’s decision to place her as a top seed after she returned. She then lost an important game, explaining that her body just could not perform as it had pre-injury, and that made her doubt whether she should have competed at that ranking. Emma said that injury had left her, “Like not feeling invincible anymore (2013),” and it made her realize that she needed to take care of her body. Injury made her question her ranking and whether her teammates thought she deserved her position within the team. “My coach put me ahead of her. ...Like I don’t even feel like did I really deserve the place I did. ...I wonder if she was like miffed that I got put ahead of her when I wasn’t playing for all that time. She doesn’t know what my capabilities are (2013).”

The athletic identity was blatantly compromised by injury, and all the athletes described circumstances when injury had caused them to feel that they were less of an athlete. Injury forced athletes not to do the very thing that had established them as athletes, which was playing sports. There was less of an obvious threat to the female identity because injury did not prevent women from participating in an activity that defined femininity. Yet most of the participants made a reference to an outcome of injury that had made them feel less feminine.

The women in this study did not feel that being female was at odds with being an athlete prior to injury. In fact they felt as if they were treated equally both by the medical

staff and other students. “I’ve never felt like in treatment and care or anything medical that we were on an uneven playing field,” explained Reanne. She felt that attention from other students was positive and that they showed interest in her as an athlete. “I think that everyone respects us the same.” Although she did say, “I know the football team gets treated like a bunch of princesses. ... Because of their ranking (2013).” I remain sceptical that it was only to do with ranking but the other participants felt the same regarding any sex differences. Bea said, “I don’t really notice anything that’s different (2013).” Similarly Leigh replied, “I can’t think of any differences (2013).” Emma explained that, “I got preferential treatment once (for being female) (2013).”

Injury however affected the feminine identity, and produced body changes that made the participants feel less feminine, unattractive and self-conscious, even causing them to change their lifestyle. Bea and Reanne discussed the need to change their lifestyle and eating habits after surgery because surgery made them self-conscious of their bodies for the first time that either of them could remember. “I kept looking at myself and going I look a little fat. ...It was a lot of body image stuff that I’d never worried about before (2013).” Bea felt the need to get back to the gym quickly both to improve her chances of returning to sport and to tone her body. She said that her friends and family told her that she looked great, but she still felt less comfortable with her body. “I was like I need to cover this. I’m so embarrassed. And all my friends were like no no no. And I was like I actually want to lose this weight. It was just weird (2013).” Both women recognized that they had actually had minimal weight gain that no one else noticed, but they felt less comfortable with their bodies while they were injured.

When I asked Leigh about the way that injury had affected her self-perception, her

immediate response was, “I didn’t feel sexy at all (2013).” She went on to explain that injury affected how she felt about her femininity and her body.

I didn’t feel feminine like I usually feel. ... When I’m in really good shape I feel good about my body and it makes me feel happy and then I just felt like. Like my appetite went down, I didn’t gain any weight or anything. But I just felt like, in addition to having the limp you know your muscles start to atrophy and you just feel all, in comparison to your normal buff self you feel flimsy. And like, yeah. So aside from like not feeling like myself as a person, physically I didn’t feel like myself. And I felt really self-conscious (Leigh 2013).

To compensate for the awkwardness and normalize the situation, she would joke about her injury.

Emma said that continuing to play on her injury prevented her from wearing high heels, adding that she had no regrets of course. But in all seriousness she agreed with Leigh’s explanation of the effects of injury on her femininity. Most of the athletes described a situation where injury was in conflict with being feminine. Athleticism in itself was not regarded as a threat to femininity but being injured was, and injury is a component of elite sports, especially for athletes who played contact or high-risk sports where injury was regarded as normal. Although when I asked female athletes if they felt that people regarded them differently to male athletes, they had all answered no, injury compromised the female identity. Perhaps athleticism was not a threat to the female identity but injury most definitely had a detrimental effect on feeling feminine.

At risk of losing both their athletic and feminine identities, female athletes wanted to return to sport as quickly as possible. Emma’s explanation that one of the changes caused

by playing on her injury was that it was difficult to wear high heels, was also telling in that she continued to compete even though she was in pain. Playing through pain was an idea already embedded in the minds of athletes through the process of being accepted into the culture of sport, and the added fear of losing their identity created a pressure to play while injured.

Although these women recalled being pressured to play by others, the overriding sentiment was that more often than not, it was a personal urge that drove them to persevere through pain and injury. One of the athletes was told she would need two surgeries to fix the amount of damage to her body. She had continued to play despite pain and numbness in her limbs because of her strong desire to train for a particular team. Another athlete, Emma, did not regret her decision to play while injured because she needed to play in order to keep her spot on the team. Mia knew that because she did not tell her coaches and continued to play with pain, she had worsened her injury.

Pain was so inculcated into their daily lives that it was not viewed as a cause for concern. In fact, Mia explained, to nods of agreement from the rest of the group, that aches and pains came and went, and were, “just kind of an athlete thing (2013).” It was so difficult to discern between those regular sports pains and a serious injury that she had ignored the pain that ultimately led to an overuse injury. The other athletes in the focus group agreed that playing on an injury sometimes occurred simply because they had not realized that the pain was actually indicative of an injury. Pain in itself was not a problem unless it made athletes miss competition or training, and then perhaps it was considered an injury. And injury too was such a normal part of sport for these women that they all had a list of previous injuries to discuss aside from the injury that brought them to the

study. It was clear that all the athletes accepted that pain was a sacrifice made in order to compete at a high level. The athletes also confirmed to each other through conversation in the focus group that pain was part of being an athlete, and in doing so affirmed that participation in the culture of sport meant acceptance of pain.

Athletes in both individual and team sports spoke about the pressure to play through pain created by training with teammates, training partners, or trainers. Leigh stated that, “it’s really like self-pressure but it’s created by the team environment,” verbalizing well the pressures created by the culture of sport (2013). Athletes explained that they pushed each other to perform to the best of their ability, always challenging each other to attain the highest level of play. And missing training sessions made them feel as if they were falling behind, compelling them to practice even when they were in pain. Mia tried to make it through a fitness test while in such severe pain that her coach noticed and told her to sit out and seek help. Leigh tried to power through a ten-minute run although she was still walking with a pronounced limp, and she did not make it down the block. Kara continued to lift weights and practice despite numbness and pain that eventually led to surgery. All three of these athletes explained that the pressure to play while injured was self-induced, partially due to the concern that if they did not continue with their workouts then they would fall behind and not be as good as their training partners or teammates.

When an athlete could not play through pain, a failure according to the culture of sport, she attempted to explain that the shortcoming was only in her body and that she herself had the courage and desire to fight the pain and compete. Generally, athletes tended to relate to their bodies as a separate entity, implying a separation between themselves and their bodies. This detachment was apparent in the way that athletes

discussed their body and injured body parts. Leigh said, “I feel good about my body and it makes me feel happy (2013).” After her injury, Reanne said that she had asked herself, “Can my body handle a season (of sport) (2013)?” The injury experience caused Emma to recognize that, “Your body can’t keep up with you necessarily,” and Mia learned to, “Respect the signals your body is giving you (2013).”

The athletes also attempted to distance themselves from their injury by referring to their body or injured body part as separate from them. While discussing injury and recovery they referred to the injured limb as a disconnected unit. When Kara listed off her injuries she joked, “I think my left knee felt neglected,” and later when explaining her injury she said, “I just heard my knee... I tore the whole thing (2013).” She referred to her knee as having its own feelings, and as an object needing care rather than part of herself. Similarly, Mia said, “my muscles were all cold,” claiming them as her own, but when discussing her injury she said, “the hip was killing me,” separating herself from her injured hip (2013). Emma also described her ankle as an object rather than a part of her when analyzing whether she could play or not. “My ankle was okay enough to play (2013).” Talking about their bodies in third person allowed athletes to distance themselves from their injured limbs and reject the notion that they themselves experienced pain or injury that prevented them from competing. This separation from injury allowed them to feel that they still belonged to the culture of sport, and that an injured limb was a minor setback that could be treated and managed before returning to play. The manner in which athletes described their bodies and injured body parts once again showed how the culture of sport affected athletes’ outlook towards pain and injury.

Athletes’ perception of the experience of injury was also affected by the people

around them, both from within and from outside of the culture of sport, who supported them while they were injured. Support was sometimes perceived as helpful and at other times deemed to be pressure. Whether the support was considered positive or negative depended on the athlete, the context and on the support provider. The reactions and support that athletes received from the people around them shaped their experience of injury, and even their decisions regarding return to play. Athletes also seemed to seek sport specific support from coaches and teammates, while they relied on friends and family for more basic needs.

Reanne said that her coaches were very supportive while she was injured but one coach's continuous questioning about when she could play again influenced her decision to return too early; she was consequently reinjured in her first game back. Similarly, a close family member kept asking Kara if there was anything more the doctors could do to help her recovery. She had made the difficult decision to quit sports after countless injuries, several of which required surgeries and extensive rehabilitation. The constant inquiry added unnecessary stress to the situation, and she did not find it helpful or supportive.

When teammates expressed concern for Emma's injury, it felt to her like pity rather than empathy. "They like pity you more sometimes. Which kinda made me like irritated (2013)." She resented the attention, and it made her feel more self conscious about the injury. Her boyfriend however, who was also an athlete, was extremely helpful and supportive both through injury and when she competed. She felt that he understood the importance to her of competition and the devastation of a poor performance when trying to return from injury.

Reanne's boyfriend was also involved in the culture of sport, and she relied on him to help physically with her rehabilitation. In addition, he helped her with day-to-day tasks such as bathing and preparing food, both of which were difficult for her while she was injured. Her friends and teammates assisted her with rides to and from university, and were quick to defend her position on the team and in their social group. For example, while she was injured a new player said, "She's not really on the team... And then my other teammates like all stood up for me, like listen, you don't talk to her that way (2013)."

For Leigh, sport specific support came from a coach who understood her needs while she was injured. "I had one coach that was really good at modifying workouts when I was injured. And he was like... you should be having time off but... he knew that like psychologically that would be good for me (2013)." He gave her workouts that would not aggravate the injury because he realized that she needed to feel as if she was doing her utmost to return to sport. When another injury prevented her from training at all she felt socially isolated from her friends and teammates. "Nobody else has time to hang out with you... Like your social time is practice time." Leigh explained that the consequence of her injury was that, "I was definitely lonely," so in that case she did not feel that she received much support (2013).

At first Mia ignored her injury, continued training and did not seek help from anyone. When the injury worsened to a degree that she began to worry, she sought help from her mother who advised her to notify the coach. She decided to delay telling him, but her coach noticed the decline in her training and instructed her to sit out. Later he reprimanded her for not informing him immediately and attending to the injury sooner.

He said to her that as a pivotal part of the team, “If you’re not telling me what’s going on with you then how can I expect the other girls to (2013).” He was fully supportive of taking time for recovery, but she had felt at the time that, “I didn’t want to look like I was trying to get out of testing (2013).” And later regarding her teammates she said, “I guess I felt almost like I had to explain myself. Like I’m injured or else I’d be doing it too. I’m not slacking off. I’m not being lazy about it (2013).” Even though support was verbally expressed after the injury, initially Mia only admitted she was injured to family who was not involved in sports. She did not seek support from teammates, friends or coaches from within the culture of sport until she could no longer hide the injury.

The support that Bea received after her first surgery from friends and family uninvolved in the culture of sport was mostly positive. “They (friends) were helpful. Family was helpful (2013).” She explained how her mother helped her with basic needs such as brushing her hair, which initially she could not manage herself. Her friends came to visit her after surgery, and carried her belongings around campus. And although she appreciated the support, she also felt that, “The constant awareness that they would bring to it. ...Like that bothered me a bit but I can’t do anything about that (2013).” Bea realized that the intent was to be helpful, so she valued their support despite sometimes feeling that it was overwhelming or drew unwanted attention.

Bea also began to socialize more with those friends from outside the culture of sport after her injury. Due to the timing of her injury she was cut from roster, and because she was not officially on the team she did not rely on her former teammates and coaches for any support. The result being that she was unaware of, and consequently did not access some of the resources for athletes that she could have through the university. Post surgery

rehabilitation would have been free and immediate for her through the university's varsity injury clinic, and instead she had to wait to reach her surgeon who connected her through his clinic to a different rehabilitation centre.

After a more recent injury when Bea was more informed about the clinic, she found their support and care to be extremely helpful. Both her and Reanne explained how important the clinic was to their recovery; the prohibitive costs of physiotherapy would have made it impossible for either of them to receive the level of care that they received at the Sport Injury Clinic at York University. Reanne said, "If it wasn't for the clinic, I would not have been able to afford my rehab. ...I would not have played again if it were not for that clinic (2013)." To which Bea replied, "I agree (2013)." They explained extensively the positive impact of the support and care that they received at the clinic.

I observed many other times when athletes agreed with and supported each other throughout the focus groups. The athletes listened to one other, expanding on statements made by other athletes, both confirming and legitimizing each other's opinions and experiences. It was important to me that participants received that type of positive affirmation from each other, and indeed it was my justification for conducting focus groups. When Leigh paused after declaring, "People would stare at me and be like why is that 25-year-old girl limping (2013)," Emma responded with, "She's a major athlete and she's putting her body through...(2013)" Leigh and the rest of the focus group laughed and nodded their agreement; they understood those feelings of discomfort. Emma went on to explain that she too felt self-conscious about her injury, and Mia added that she felt the need to explain herself to teammates so that she would not appear to be a slacker.

In that statement, Emma also reaffirmed Leigh's identity as an athlete despite her

current status as injured and sidelined. Assurance was provided to Leigh that at least amongst the other athletes in the focus group she was still considered a high level athlete. Athletes also referred to the levels at which they competed and their status within their teams throughout the stories that they told, which also confirmed their identity as athletes to each other despite their injuries. Emma mentioned that she was highly ranked within her team, Mia reiterated her coach's assertion that she was a pivotal part of the team and Leigh explained her history of sports competition. In the language that they used and throughout the discussion there was a clear respect and camaraderie for each other as athletes, which served to support each other through the shared experience of injury. It also reinforced the athletic identity that was so threatened by injury, encouraging the athletes that they could recover and regain their identities as healthy and strong competitors.

All of the athletes in the focus groups expressed concern that they would not be able to return to play at the same level, and some of them questioned the impact that injury would have on their future athletic identity or involvement in the culture of sport. When Bea voiced her anxiety about making a full recovery after her upcoming surgery, Reanne immediately reassured her, offering to put her in touch with a player who had returned to the same level of play and intensity after two such surgeries. They then entered into a discussion of post-surgery rehabilitation at the York Sport Injury Clinic that was only available to athletes, and the types of exercises that she would have to do before and after surgery. Bea worried about her status as an athlete due to being left off the roster and Reanne assured her that she was definitely still an athlete. Throughout the exchange Bea took notes, and afterwards thanked Reanne for her advice and encouragement.

The experience of injury changed athletes' self-perception, challenging their athletic and feminine identities. The pressure that they felt to regain the physical ability to compete again that allowed them to restore that identity contributed to decisions to play before full health was restored. Additionally, the physical environment, pressure felt from being a part of the culture of sport, and social expectations impacted their decisions to return to play after injury. The type of support that they received throughout their injury and recovery also affected their recovery and self-perceptions. Athletes cited pressure and support as reasons to continue playing through pain and injury, sometimes causing further and more severe injury that prevented them from future competition.

Recovering from Injury: Re-evaluation of Injury and Its Causes

Some participants in this study were recently injured or awaiting surgery while others were well on their way to recovery, but all of them had experienced at least part of the recovery procedure. Throughout that time they evaluated and re-evaluated the incident that caused the injury, and themselves as athletes and women. They began to understand the impact that injury could have on future performance. There was a process of self-examination that ensued, and a realization or admission of injury severity. Injury changed the relationship that an athlete once had with a body that she viewed essentially as a high performance instrument until it was damaged. The attitudes that athletes had towards this new awareness and towards the barriers that inevitably emerged while undergoing rehabilitation were important to their happiness and confidence. The help and support that they received from the people around them also contributed to their ability to cope, and influenced how they approached their recovery.

In the narrative that I heard from many of the women there was an undercurrent of regret or self-blame regarding injury that seemed to have developed with hindsight. They indicated that somehow they should have known better, and that whether it was because of risks that they took in a game, overtraining to an extreme extent or ignoring their body and pain until the injury worsened, it might have been within their control to at least partly prevent the injury. In Reanne's description of the way she was injured in a game she stated, "And it was my own fault (2013)," because she felt that her incorrect technique caused the injury. Kara echoed that sentiment explaining that, "A lot of my injuries were accidents but the overuse injuries with my _____, those were just not listening to my body. ...I wish sometimes looking back, I wish it would have been a lot different (2013)." Similarly, Bea felt that not paying attention to an injury had worsened the long-term outcome.

I regret, like I tell people if you feel yourself that you're injured. You know yourself like how much pain you're in and if you like can still play and if you think it's serious. Don't feel pressured like you need to play. ...And she didn't want me going to the hospital, my coach back then, cuz she wanted me to play. And I regret not going at all cuz there is something wrong with my wrist like still to this day like it dislocates. But I don't talk about it. Like I have enough injuries. Like no else needs to hear about that. But I just regret. I regret it (Bea, 2013).

High level athletes are injured often and I felt while I was listening to these women that their apparent guilt could not possibly do anything other than feed the disappointment that they already felt in themselves by failing in their athleticism. It was not constructive and indeed could be a barrier to recovery or return to sport. On further

analysis I thought that it might have been a way for athletes to feel as if they retained some control over the situation. Injury was a disruption to their daily routine, their identity and their social life so feeling that they might have been able to change the outcome allowed them a modicum of control in preventing future injuries. Whether a change in behavior could actually prevent injury was maybe less relevant than feeling in control of the situation. An athlete's attitude towards what she perceived as her own mistake influenced whether she used the experience to make constructive changes for the future or dwelt on regret.

Mia expressed the notion that responding differently towards her injury might have moderated the severity, but she also gave a reason for her actions. "Part of it was also I thought it was going to go away. ...So I'm going to try and use better judgment in what is an injury that needs attention and what's one that will resolve itself and quite before it gets really bad (2013)." For her, taking responsibility was a way to look forward and improve future performance. Kara too understood that although her overuse injuries had caused her to miss a whole year of play, the determination to train that hard was partly what made her reach that elite level both before and again after that injury. "The reason why I trained as hard as I did is cuz I wanted to make that team you know. ...I mean now looking back I don't think I would regret anything that I did. And I feel good like about that (2013)."

Both Mia and Kara intimated that the same motivation and drive that made them succeed as athletes contributed to their reluctance to stop playing when they were injured. When Kara explained why she did not rest her injury as she should have, she clearly acknowledged that, "At the same time that's not really who I am." Part of her identity,

like so many elite athletes, was to train through pain and keep playing at all costs. Injury or secondary injury might have been preventable or at the very least the damage might have been minimized for both these women had they exercised caution and been willing to take time off from their training. They realized that perseverance was a great quality to have as an athlete, but also that injury had taught them the need for rest and recuperation even if that meant missing games and practices.

For other athletes, it was less about being accountable and using their experience to improve future outcomes, and more about regretting decisions. For example, Emma said,

I wish I had relaxed a bit more because I did keep going to practices and all the matches even though I wasn't playing. And then, um, in doing so I think I just stretched out my time and I got really sick. ...before our national qualifier. And then like, I was so close to winning. ...And it would have made a big difference for our team (Emma, 2013).

She felt that pushing herself too hard during her recovery led to that loss, and she seemed to internalize the loss as her fault.

In taking a matter of fact attitude towards injury and recovery, Bea was more accepting of the situation and realistic in her ability to control being injured. "There was nothing else we (other participants) could have done. We did the best we could." She did, however, regret how she had scheduled her previous surgery, and criticized herself for lack of adherence to her rehabilitation program. "But that's probably something I would like to change this time around and um I was just like wishing last year that I had my surgery earlier so I could rehab here on campus (2013)." And in regards to her recovery she remarked, "I was one of those athletes that didn't do it (rehabilitation exercises) as

much as I should have, and like obviously it prolonged my return to play (2013).” Bea wanted to use her previous experiences with injury to improve the outcome of her upcoming surgery. She was aware of the changes that she needed to make in order to feel better about her effort in the recovery process.

Some athletes understood that perhaps the same qualities that influenced them to endure the rigors of competition also led them to overlook injury in order to continue playing. They also realized that persistence was part of their identity as athletes, and that it could be a positive as well as negative characteristic. Being self-aware and knowing when to take a break was important as Emma said, “And you just have to remind yourself that to really take care of your body (2013).” Athletes who were so inured to pain and so willing to tolerate it in order to succeed needed to remind themselves to care for their bodies.

Not all barriers to recovery were as easily removed by a change in effort and outlook. A disruption of the normal functioning female athletic body not only threatened identity and insider status but also left athletes feeling that their bodies were vulnerable and subpar, an object from which they wanted to distance themselves. There was a feeling of disappointment in the unexpected discovery that an injured body did not necessarily heal as predicted. The body’s recovery process was not the same as a mechanical repair or fully within an athlete’s control. Leigh felt embarrassed of her damaged body, and approached training more cautiously. Before her injury she had a more *laissez faire* attitude towards risk, but she now understood that her body had limits. “It’s made me more cautious. Like I used to be more of a daredevil (2013).” Injury created a heightened awareness of the body, and of its integral role in both the athletic

and female identities. Emma explained that her body would never quite be the same. “And it’s not something that’s gonna fix. Like I won’t have that ligament in my ankle anymore (2013).” Injury also changed the way she viewed her body. “Like, you have to get past that mentality that you’re invincible. Cuz I still think I’m invincible even after getting hurt like, I forget (2013).” Bea did not want her friends to draw attention to her injury. “It’s just the constant awareness that they would bring to it. ...Like that bothered me a bit (2013).” Similarly, Emma would have preferred had her teammates took no notice of her injury. “Like I don’t want them to be like oh poor ____, why are you playing on your ankle? Just ignore it (2013).”

Some athletes also noticed other people’s bodies and more specifically they noticed differently abled people more once they had been injured. Bea became aware of anyone on crutches, in slings or otherwise visibly injured, and said she felt a shared experience with all of those strangers. When Kara was going through an identity crisis after her injury, remembering an acquaintance whose injuries were permanent changed the way she viewed her own body and injuries. She came to the realization that her injuries, although limiting for sport, were minor. Her heightened awareness of the body and permanent injury induced her to begin a sports program for differently abled people. Injury caused a heightened awareness of bodies both their own and others’, which was sometimes a barrier to recovery but at other times caused an appreciation of having a mostly healthy body.

Athletes’ attitudes were influential in the way that they perceived potential obstacles, and dealt with those obstacles. Some of the other barriers that athlete’s highlighted were money, work, classes, and time loss due to injury. Leigh highlighted the importance of

money to pay for treatment. “I probably would have gotten more, or like more types of treatment or would have had more sessions if I had more money (2013).” She also still had to go to work in order to support herself, and getting to and from work was problematic while she was injured. “And so I would usually end up walking there. Uh if I had a car then that would have been great. Because then by the time you get there it’s all inflamed. And it feels terrible (2013).” Bea and Reanne were also concerned with working off their student debt, and whether injury would hamper their ability to work. Bea said that, “Yeah, I wanna get a job but I’m thinking I won’t be able to stand for a while. Like for long hours for a while. ...And now I’m given like three different job opportunities and I don’t think I can work (2013).” Reanne exclaimed that, “I was terrified to go back to my job! ...And my shifts are nine hours, on your feet, walking around. ...And like my knee was on fire sometimes by the end of it (2013).”

There was not much that athletes could do to change their financial need while they were injured. They discussed how injury affected their ability to make money, and that the nature of their job sometimes aggravated the injury. Although it was a barrier to recovery, athletes were accepting of the need to work and towards the time lost at work due to injury. The stress of balancing injury and work was, for many of the participants, part of the culture of being a student-athlete in a Canadian context. Those athletes for whom it was a concern explained the difficulties, but none of them said that it delayed return to play in any way or that they wished to have taken more time off work.

All barring one participant in the study were student-athletes so balancing the pressures of class, sports and injury was part of their reality. In addition to the athletic and female identities, they also identified as students and wanted to meet the expectations

required of university students. The effect of injury on athletes' stress towards classes and schoolwork depended on the athlete and whether they perceived the injury as giving them more or less time to complete class work. Bea explained that she was able to drop a class that she wanted to drop anyway without any academic penalty due to her injury, and, "I wasn't going to practices so I had more time so my schoolwork got done (2013)." Mia said, "I found I was late to class more because I was a lot slower... But aside from that, no, (had no effect) not really an impact (2013)." Emma's experience was that, "I thought it was like extra because I still went to practice and went to the tournaments but then I had an extra like four, five hours of physio (2013)." Reanne mentioned that she had more time to do her class work once she was injured because she did not have to attend every practice and competition. "Like I could pick and choose if I could go to practice or not and stuff like that. ... And I would do my schoolwork and it would be fine (2013)."

While Leigh also concluded that injury gave her more time, she said, "I think it gave me more time for school but I was less efficient. ...Because part of it too is that it helps me focus, after I had a workout for the day. ...So I don't think productivity went up but time spent sitting definitely went up (2013)." It was the athletes' perceptions of the barrier and how injury affected their ability to get their schoolwork completed that influenced whether they felt that injury contributed to, lessened, or had no affect on the stress of their university course load.

The effects of injury on athletes while they recovered also changed as athletes realized the severity of the injury, and admitted their own limitations. Athletes were highly motivated to continue playing sports despite experiencing pain and injury. They had invested time and effort to reach the levels at which they competed, and indeed

perseverance was an important part of their identity. Many of the athletes said that they did not initially realize the severity of the injury and it was that understanding that was more upsetting than the pain itself.

When Bea was injured she said that, “I didn’t think it was serious cuz the way I fell I’m like you know what I’ll just limp it off (2013).” Later, when the athletic therapist explained the nature of the injury Bea’s response was, “No, are you sure? Can we get that checked? ... I was like no way. It was bad (2013).” Her understanding of the type of injury and the recovery time that went with that injury was more upsetting than the pain experienced with the fall. Similarly, Reanne said, “I didn’t shed a single tear until _____ came over to me and said, might be your _____ and then I was like, and then the waterworks started, and then cuz then I was like I’ll never play again (2013)!”

Once athletes had attained elite levels of competition, sport was more than just a hobby; it became their social framework and the culture to which they belonged. Being a part of the culture of sport, which prized sacrificing the body for glory in sports, added to athletes’ beliefs that injury was part of the game. The notion that if they tried hard enough then they could endure the pain and keep training and playing was inculcated into their identity.

Throughout her recovery Bea was still training to improve her abilities. “So I tried fixing that, I rehabbed. The summer I worked out way, I think I overworked out myself (2013).” Leigh also continued with modified training routines even though she was supposed to be resting for her recovery. “I had one coach that was really good at modifying workouts when I was injured. ... He was like you shouldn’t be _____ because your _____ hurting, you should be having time off but he was like I know you want to be

here so he would give me a kick workout (2013).” Even though it made her injury worse, Kara would not stop training until the coaches decided that they could not allow her to compete. “They couldn’t take a player like me when I couldn’t feel my arms anymore (2013).”

For some athletes the realization that their injury was severe and might impact future performance was not immediate. It was an awareness that developed once they fully assessed the injury or even weeks later during recovery. Leigh described getting injured and then, “It was so intense that I think I was in shock. I kept training. ...And then when I got home. It was tough. I couldn’t even walk (2013).” Weeks after her surgery, Kara realized that she may not return to sport and she said she felt that, “This is it, feels like my life is over and I’m depressed and it’s not good and I had kind of a bad attitude (2013).” Leigh too, said that after her injury she felt that, “I was depressed for sure. ...It didn’t feel like me (2013).”

Sustaining an injury serious enough to affect continued participation in sport was devastating and caused athletes to re-evaluate their identity. Reanne stated that, “I had a huge identity crisis. Cuz I was just like I don’t know if I’m going to play again. I don’t know. And then I was afraid I was going to lose all my, like my circle of friends through not playing (2013).” Bea explained that although her sport did not define her it was integral to her identity, and without the structure of sport she was unsure how to proceed at university.

And like I always felt that ____ was a part of me but it never defined me so like I was having a crisis with trying to figure out how I’m supposed to like, like go on with life and like the year not playing because it has always been a part of who I

was and the activities and the friends I had through it and everything (Bea, 2013).

Kara explained that even at the point that she knew she could not continue in sports, she still did not want to make that decision. Perseverance was an important part of her identity and she preferred that someone else make the choice to stop her playing. “I just knew in my head I was done. Like I was kinda hoping they would make the decision so I didn’t have to (2013).” Perhaps it was less damaging to her self-perception if she felt that she never gave up, but rather it was a situation and decision that was out of her control. In a culture that prized physical ability and success, being injured and not playing anymore was a failing.

The culture of sport promoted perseverance and endurance against all adversity, which for athletes meant playing through pain and ignoring injury. The cost of this practice was that at times injuries were made more severe through overtraining or athletes returned to play too soon and sustained a secondary injury. Even knowing the possible consequences, athletes continued to adhere to the tenets of the culture of sport. Sport was not just a hobby but also a social framework, and their identity was developed in and tied to that athletic community. While the athletic identity and the culture of sport could not possibly cause injury, they certainly influenced whether athletes admitted that they were injured and sought the necessary treatment. The social context of being an injured female athlete also shaped the way that athletes responded to injury, and how female athletes were affected by injury.

DISCUSSION

Important Findings

In this study, findings indicated that injury affected female athletes even before they played at elite levels such as university or college. From a young age the development of an athletic identity meant an acceptance of pain and injury as well as an understanding that sacrifices were to be made for sports. This influenced the way that female athletes related to pain and to their bodies and whether they decided to seek treatment for injury. Overt pressure to play through pain as well as the social support that an athlete received also impacted injury, secondary injury, treatment choices and returning to play too soon after an injury. As athletes became more involved in sport and identified themselves more closely with their athlete identities, because of time, schedules and similar interests their friendships from inside the culture of sport thrived and it was more difficult to sustain relationships outside of the athletic community. This served to reinforce the athletic identity and further immerse the athletes in the culture of sport.

The participants in this study felt that injury was a threat to their athletic identity. It also challenged their feminine identities, because they perceived that visible injury was not a feminine characteristic and being unable to exercise changed their fit figures into something less ideal. The pressure to play did not relent while these athletes were injured, which added to the feeling that sustaining an injury was a failure. In an unconscious attempt to distance themselves from that failure, they described the body as a separate entity that operated independently of their desires. They wanted to continue playing but their injured bodies failed to perform as expected.

The support provided to the participants while they were injured from people close to

them within and outside of the culture of sport was extremely important. Mostly athletes described the care that they received from parents, teammates, friends, significant others, coaches and athletic therapists as positive and necessary to their recovery. They also highlighted instances where people who were supposed to support them instead applied pressure to play. Some athletes perceived support differently, which influenced whether they felt supported or pressured.

Once the reality of being an injured female athlete really sunk in, many of the participants discussed changes to the way they viewed themselves and in their perceptions of the importance of sport and continuing to play. They expressed feelings of guilt and self blame in how they dealt with injury and even in the manner in which the injury was sustained. Injury was psychologically difficult for athletes, who explained that being injured made them despondent, unhappy, and it caused additional stress. Socially they were isolated from their teammates who were still training and playing together, which prompted some athletes to seek friends from outside the culture of sport. The psychosocial barriers that they experienced caused athletes to re-evaluate their identity, their future in sport and their understanding of injury and their own body.

Pre-Injury: Becoming an Athlete – Identity Development and the Culture of Sport

Incorporation into the culture of sport and the development of an athletic identity described by athletes in this study were similar to the process of developing an athletic identity in sports subcultures as described by researchers Coakley and Donnelly. In studying the construction of identity in male rookie rock climbers and rugby players, they recognized that there were stages of initiation into sports subcultures. At each stage as

athletes proved ability and reliability they were invited to participate more often and became further immersed in the subculture (Donnelly & Young, 1999). For many of the athletes in this study, university sport was the highest level that they would attain, and they either belonged to or strived to belong to the student-athlete subculture of sport.

This study's findings indicated that the development of an athletic identity began at a young age even before athletes competed at high levels. In a study that discussed the construction of the athletic identity and its effects on injury, the researcher noted a particular point where a girl began identifying as an athlete as she became more heavily involved in sports (Sparkes, 1998). Youth also highlighted reasons why they did or did not want to participate in sports, and many of them cited relevance to their current identity and the way that others perceived them. There was an understanding that playing sports gave you a certain social reputation and that specific characteristics were expected of girls and boys who played sports (Coakley & White, 1992). The women in this study who became more involved in sports developed an athletic identity and met those requirements.

The participants in our study did not feel that the athletic identity pre-injury was in conflict with their feminine identity. Despite being strong, aggressive and muscular all of which were reported in the literature as male attributes, they felt accepted and even revered as athletes in university life (Young & White, 1995; Young, McTeer, & White, 1994). I do not know if this was a reflection of university culture as opposed to society as a whole or if there was actually a shift in regard towards female athletes and strong women. I was impressed with the athletes' stories of the pride they felt in wearing athletic gear on campus and the reaction of other students towards them. They felt that they were

afforded as much attention as the male athletes and valued to the same extent.

Previous studies showed that for male athletes a perfect athletic body was the same as the hegemonic ideal for male bodies in society. There was no conflict between the body that was idealized for them as athletes and as men, and indeed athletes were viewed as attractive masculine men (Young & White, 1995, 2007; Young, 2004). In contrast, the female body prized by society was petite and slim with only slight muscle definition, which was not the norm for female athletes in many sports, especially in sports where heavy musculature was an advantage. Women mentioned feeling unfeminine, butch, unattractive, deviant in society, too muscular, bigger than other girls, and marginalized (Charlesworth & Young, 2006; Krane et al., 2004; Pike & Maguire, 2003). They were told that their hands were as big as men's hands, they had huge feet and they were too tall to date (Krane et al., 2004). This created a paradoxical ideal for their bodies – a sporting female body that required strength and bulk versus society's feminine ideal of slimness.

With discussion in the literature of the differences between the idealization of female and male athletes (Charlesworth & Young, 2006; Krane et al., 2004; Pike & Maguire, 2003) as well as my personal experience with being told not to play hockey because I was a girl, I was surprised and gladdened that the athletes in this study saw minimal differences between the treatment of female and male university athletes. One athlete mentioned preferential treatment for the football team, which she thought was due to their high Canadian Interuniversity Sport ranking. I remained skeptical yet none of the other athletes could even think of an instance where they felt inferior for being female athletes. They also did not feel that their femininity was questioned despite being strong and athletic. It made me hope that there has been a shift in society's outlook towards female

athletes, at least in university.

The participants felt strongly connected to their athletic identity and to the people within the culture of sport. However a couple of athletes, due to the severity of their injuries, were not selected for teams or could not attend competitions, and it made them unsure of their identity and future participation in sports. Socially, it was isolating to be separated from the team in which time and effort had already been invested and it made them question their athletic identity. Research explains that recruitment was an important stage of the development of the athletic identity, without which people did not confidently identify as athletes (Donnelly & Young, 1999).

Social acceptance and the sense of belonging that athletes felt from participating in sports reinforced their desire to be involved in the culture surrounding sport. Athletes in the study mentioned situations where they felt that people within the culture of sport understood them better or provided positive support when it was most needed. They perceived that their friends from outside of the culture of sport did not always understand their commitment to and sacrifice for sports whereas other athletes shared their experiences and love of sport. The benefits to women who participated in sport were well documented in the literature, explaining the satisfaction, pride and positive self-image gained from playing sports (Charlesworth & Young, 2004; Colvin & Lynn, 2010; Harber, 2010; Nixon II, 2004; Pike & Maguire, 2003; Pike, 2005). In addition, the social support and relationships built within the culture of sport both helped athletes excel at sport and provided a support network during injury (Bianco & Eklund, 2001; Evans et al., 2000; Freeman et al., 2011; Hardy et al., 1991). Socially, athletes who acquired the athletic identity and conformed to the culture of sport were more likely to be accepted and reap

those benefits (Donnelly & Young, 1999).

Although there were many benefits to sports participation, the culture of sport was not without its problems. A basic tenet of the culture of sport was to regard sport as having greater import than any other aspect of life. Social and family commitments, school, work and health were expected sacrifices made by all the participants, albeit to different extents. And research showed that the willingness to forgo other areas of life for sports was a decision commonly made by athletes (Donnelly, 2004; Nixon II, 2004; Pike & Maguire, 2003; Young, 2004). Shifting all focus and effort into sports made athletes more invested in their athletic identity, and the literature discussed that a cost of this narrowed identity was withdrawal from other aspects of life (Pike & Maguire, 2003; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996).

Becoming Injured: Ignoring Injury and Normalization of Pain

The problem with single-mindedness regarding sports was that injury or exclusion for any other reason led to an identity crisis. Three of the participants explicitly said that injury caused them to have an identity crisis, and all the other participants mentioned questioning their importance to the team and struggling with the ramifications of injury on future sport participation. Several researchers described injured athletes' identity crisis amongst other negative effects of injury. Athletes were unable to imagine other careers or identities for themselves, and they became despondent to future possibilities inside and outside of sports (Collinson & Hockey, 2007; Sparkes & Smith, 2003; Sparkes, 1998; Thing, 2004).

Our results showed that athletes tried to continue playing with injury, train while

injured and return as quickly as possible even when they were unsure of full recovery. The participants explained that they wanted to retain their position both socially and physically and did not want others to perceive them as weak or unable to fulfill their role. Staying involved in sports by training and attending competition minimized the threat to their identity, and proved that they were stoic and strong athletes. Elizabeth Pike described that athletes felt out of kilter when injured and struggled to maintain their identity, leading them to ignore pain and play with injury (Pike & Maguire, 2003; Pike, 2005). They continued to play while injured to avoid the identity crisis that ensued when they were no longer competing (Cockett & Holtan, 2000; Collinson & Hockey, 2007; Pike & Maguire, 2003; Pike, 2005; Young, 2004).

The participants in our study recounted instances where their feminine identity was also threatened by injury, even though they had not felt that the athletic identity pre-injury was in conflict with their feminine identity. The physique that was important to them as women was compromised by the inability to continue training with the same intensity, and being visibly injured made them feel self-conscious and less attractive. They were no longer idealized young able-bodied women. The literature discussed the manner in which injury affected the athletic identity (Cockett & Holtan, 2000; Collinson & Hockey, 2007; Donnelly, 2004; Pike & Maguire, 2003; Pike, 2005; Thing, 2004; Young, 2004) and the way the athletic identity conflicted with the feminine ideal (Charlesworth & Young, 2006; Krane et al., 2004; Pike & Maguire, 2003), but not directly the way in which injury challenged femininity. The particular interaction between the female body, femininity and injury could have been further explored, because it was a concern to many of the participants. To me it was a reflection that

although female athletes may now be more accepted and valued on campus, and even though they were admired both for their athleticism and femininity, they were ultimately held to the same societal ideals of perfection for women and women's bodies. Gaining fat, limping and other body changes did not conform to that flawlessness, which is what caused athletes to feel self-conscious, and less feminine and attractive.

Whether to maintain an athletic or feminine persona or because they felt that it was expected, the research showed that athletes continued to compete despite injury (Charlesworth & Young, 2004; Cockett & Holtan, 2000; Malcom, 2006; Pike, 2005; Safai, 2003; Theberge, 2008; Young & White, 1995). Some participants in our study explained that even as youth playing in less competitive environments the expectations of the culture of sport regarding playing with pain and sacrificing the body were clear, an idea that was supported in the literature (Malcom, 2006; Young & White, 1995). Injury was part of the game and the study participants perceived that they had to play through pain and persevere to succeed, an expectation that was only reinforced as they became more involved in higher levels of sport. Players recounted instances where coaches, friends or family members, some of whom were within the culture of sport and others who simply ascribed to those values, exerted pressure to continue playing. Regardless of who and how injured athletes were persuaded to compete, the pressure propagated the belief that pain was part of the game, and that athletes should work to overcome that pain. The literature repeatedly showed that the culture of sport insisted that injury was part of the game, and that athletes felt pressured to play while injured (Charlesworth & Young, 2004; Cockett & Holtan, 2000; Pike, 2005; Safai, 2003; Theberge, 2008; Young & White, 1995).

Our results showed that athletes perceived that the person most influential in their decision to play while injured was themselves. Personal drive and motivation to excel were certainly important factors, however athletes did not exist in a vacuum and develop the mentality to play at any cost with no input from the culture of sport. It was positive that for the most part they felt supported by current coaches and teammates to take time for full recovery, yet the entire framework of sports promoted risk and playing with pain. Pain was an expectation of their sporting life, and being in pain was part of being an athlete and a member of the culture of sport. As cited in the results, an athlete explained, to agreement from the other participants, that sometimes she genuinely could not distinguish between what she identified as normal pain in sports versus an injury that should be rested and treated, and consequently she played while injured. Pain was so normalized and so much a part of her playing experience that it alone was not a reason to stop training and seek help. The harm caused by the normalization of pain led researchers to label the culture of sport, as the ‘culture of risk’ (Nixon II, 2004; Pike & Maguire, 2003; Safai, 2003; Young, 2004). The commonly used phrase ‘no pain, no gain’ was imbibed by athletes as a mantra to justify overtraining and playing with pain, and the continual risk of injury and re-injury was embraced as part of the culture of sport (Donnelly, 2004; Nixon II, 2004; Young, 2004).

When athletes were injured to the extent that they could no longer play through the pain and they were forced to seek help and take time for recovery, then they could not conform to the culture of sport. It was a crisis that affected the way that they viewed their newly damaged bodies and themselves as athletes and women. Participants in our study discussed the injured body in third-person as a separate entity to mitigate feelings of

failure and lessen the incongruity of being an inactive athlete and an injured able-bodied woman. They distanced themselves from their injury, and as many researchers observed did not accept their new and injured bodies. They were resentful of the change and felt that it lessened their abilities, and thus their self-worth (Charlesworth & Young, 2006; Sparkes & Smith, 2003; Young, 2004).

Participants' responses to the injured body and injury were driven by entrenched beliefs common to people in the culture of sport identifying as athletes (Duquin, 1994; Pike, 2005). While those attitudes were not easy to change, the help and support that athletes received shaped their experience of injury and helped them through their recovery. Our results demonstrated that athletes relied on family and friends for basic needs such as food preparation and personal hygiene while they turned to teammates, coaches, athletic therapists and others within the culture of sport for guidance on returning to play and recovery practices. The participants felt that social support was an integral part of their recovery, and cited many instances where the professional and social support that they received was crucial in their decision to return to play. It was commonly accepted in the research that social support had a positive affect on the rehabilitation process (Bianco & Eklund, 2001; Evans et al., 2000; Freeman, Coffee, & Rees, 2011; Magyar & Duda, 2000; Nixon II, 1994; Rees & Hardy, 2000). There was little consensus on the manner in which social support was useful and what type of support was most beneficial, however many researchers agreed that more support led to a more successful recovery (Bianco & Eklund, 2001; Evans et al., 2000; Freeman et al., 2011; Hardy et al., 1991; Magyar & Duda, 2000; Nixon II, 1994, 1996; Rees & Hardy, 2000; Rees et al., 2003). Various researchers also categorized social support differently, but there was

agreement that athletes benefitted from both physical and emotional support (Bianco & Eklund, 2001; Evans et al., 2000; Rees & Hardy, 2000; Rees et al., 2003).

The participants' personal accounts in our study highlighted the importance of the support that they received both from professionals and the people close to them, and whether it either alleviated or intensified the stress. Social support was generally seen as extremely helpful but a few athletes explained situations where the support was detrimental. Two of those athletes had felt that the constant concern drew more attention to their injury when they would rather have downplayed its importance. The third of those athletes felt pressured by a family member to reconsider her decision to withdraw from sport. Several athletes recounted instances in which former coaches directly pressured or attempted to pressure them to play with an injury. After one of Kara's injuries even the medical staff wanted her to begin playing while in the midst of her rehabilitation. For these athletes the people who were supposed to, and indeed at times even tried to help them increased the stress of the situation.

Past research explained that overt pressure and intended support that was perceived as stressful had a negative effect on recovery. Athletes who felt less supported, were less likely to report injury, were less efficacious to rehabilitation programs and it influenced athletes to return to play while injured (Bianco & Eklund, 2001; Evans et al., 2000; Nixon II, 1994, 1996). When the intention of the medical and coaching staff was to downplay injury and pressure athletes to play, it was definitely detrimental to athletes' the experience of injury. In addition to not receiving the necessary treatment and care, it increased the expectation that athletes should play through pain and injury (Malcom, 2006; Pike, 2005; Safai, 2003).

The benefit of social support from interactions with other athletes in the focus group was illustrated by the in-depth discussion between the women about their similar experiences. They shared advice, encouragement and information pertaining to rehabilitation, and supported each other when recounting the circumstances of their injury. In one focus group an athlete asked for and received information about surgeons and athletic therapists for an upcoming surgery from which another athlete had previously recovered. In both focus groups there were several instances where the speaker began to hesitate and falter until she made eye contact with another participant and received confirmatory body language or words that encouraged her to further elucidate on her experiences. Focus groups were frequently used in health care research, and the benefits to participants were widely recognized (Côté-Arsenault & Morrison-Beedy, 2005; Linhorst, 2002; Wilkinson, 1998b). Social support from other athletes during recovery was important to self-esteem, confidence in recovery and to affirming injured athletes' status and identity as athletes (Bianco & Eklund, 2001; Collinson & Hockey, 2007). A study on injured long distance runners, found that positive comments from athletes, even ones who were complete strangers, was empowering for injured runners (Collinson & Hockey, 2007). In our study we chose focus groups in order that the participants derived the benefits of the social support from a focus group as well as from other athletes. An interview was only conducted for one athlete who wanted to participate but could not attend either focus group.

Recovering from Injury: Re-evaluation of Injury and Its Causes

Gaining knowledge and understanding made it easy to recognize how a different approach would have served better or resolved a problem more efficiently. In many narratives, athletes expressed regret in their decisions regarding playing with pain, and seemed to blame themselves for overtraining and worsening their injury. And yes, those athletes had ultimately chosen to play with injury, but the pressure they perceived to continue training and the guilt that they felt when taking ‘time off’ for recovery was indication that at the time the decision was not so clear or easy.

Every participant mentioned some variation on the wording ‘looking back my injury was a result of ignoring signals from my body’. They used phrases such as this in connection with returning to play too soon, overtraining and continuing to train and play while injured. This idea of self-blame was not explored extensively in the research for two reasons. Firstly, much of the research on injured athletes was conducted on athletes who experienced an isolated incident that caused severe injury. In that case athletes were unable to return to play even if they wanted to, and they perceived injury as something that happened to them rather than a preventable situation that was within their control. Researchers investigated their responses throughout injury and recovery to sudden and often permanent exclusion from their sport, and although they expressed regret at the loss of athleticism, the athletic body and athletic identity, they did not mention guilt (Collinson & Hockey, 2007; Sparkes & Smith, 2003; Sparkes, 1998, 1999). Secondly, research that did look at severe and non-severe injury often focussed on specific factors important to recovery such as social support, treatment providers or the rehabilitation process (Bianco & Eklund, 2001; Nixon II, 1994, 1996, 2004; Pike, 2005; Safai, 2003).

Although all the participants in our study expressed feeling partially responsible for their injury or the severity of their injury, there was a difference in the attitudes that they had towards that sentiment. Three of the athletes expressed attitudes of resignation, although two of those athletes were accepting of the situation and intended to work at their rehabilitation as much as possible. The third athlete's opinion was that she was culpable for making a critical mistake that had impacted her future performance, and that nothing more could be done. She was not regretful though because playing on her injury had allowed her to continue playing for her final year of university, and she did not intend to continue competing at a high level after graduating. That same athlete also felt unsupported by her teammates, and said that she attempted to downplay the injury whenever possible. The two athletes who intended to work hard at their rehabilitation felt that it was within their control to improve their recovery, and felt supported by the university's athletic therapists. Research showed that athletes who were empowered in their rehabilitation, whether through goal setting or having someone to listen to their trials, had better outcomes (Bianco & Eklund, 2001; Collinson & Hockey, 2007; Evans et al., 2000). I felt that their positive attitude was a reflection of the care that they had received from friends and athletic therapists.

Two other athletes explained that although they knew in retrospect that they should have rested their injury rather than worsen it with training, they also acted as best they could given the circumstances. One athlete explained that personality factors that made her committed to training resulted in her initial selection, and perseverance through pain was the other side of that same coin. Although she regretted her decision, she was aware that the culture of sport, her identity and personality all contributed to her choices and she

did not blame herself for her injury. Her circumstances were slightly different than the other athletes because she had returned to play at a higher level than any of them had achieved and due to another injury was no longer playing at all. This had given her distance from the culture of sport and perspective on her injury and athletic career. She was older, more introspective and had a greater grasp of the rhetoric in the research regarding career-ending injury.

The other athlete who contextualized her injury experience within the athletic identity and the normalization of pain in the culture of sport explained that previously injury and pain had never prevented her from playing. Initially she had thought that this injury was the same, but now that she had experienced a significant injury, she was determined to learn from her mistake and change future behavior and attitudes towards pain, injury and seeking help. Her coach also sent her an email explaining that in the future he expected her to notify the athletic therapist immediately of any pain, especially because other players looked to her as an example. The coach's email was a particularly constructive show of support, and it made enough of an impact that she shared it in the focus group as a positive form of support received from a coach. It gave her a sense of empowerment to change the course of her actions for future injuries, and supported her need to rest and recover fully.

Ultimately this convinced me that athletes' attitudes towards injury and recovery were dependent on the social support that they had received, on the extent to which they normalized pain and injury, and in how empowered they felt during rehabilitation. Previous experience with injury and knowledge of the recovery process also impacted their outlook towards the control that they had over their recovery. It was recognized in

the research that social support was important to recovery (Bianco & Eklund, 2001; Evans et al., 2000; Freeman, Coffee, & Rees, 2011; Magyar & Duda, 2000; Nixon II, 1994; Rees & Hardy, 2000), and that normalizing pain was detrimental to athletes (Nixon II, 2004; Pike & Maguire, 2003; Pike, 2005; Safai, 2003; Young, 2004). In addition, helping athletes to be more involved in their own rehabilitation positively influenced injury outcomes (Bianco & Eklund, 2001; Collinson & Hockey, 2007; Evans et al., 2000).

Identity and prizing the athletic body also affected recovery, and dealing with being injured certainly impacted the athletic identity. The participants strongly connected to the athletic identity, and consequently expected that their bodies continue to perform in much the same way as they had prior to the injury. During the recovery process they gained a better understanding of injury, spurring them to re-evaluate their bodies and identities to deal with the fact that they were injured inactive athletes, that returning to play was difficult and that possibly even their abilities were different.

As stated in our analysis, the athletes felt disappointed about their damaged bodies, and injury made them feel vulnerable. They were embarrassed of the changes in their bodies and they did not want people constantly drawing attention to the injury. Athletes were unsure if their injured bodies would allow them to return to sports and to retain their athletic identity. Prior research discussed that athletes were disappointed and embarrassed of their injured bodies (Collinson & Hockey, 2007; Duquin, 1994; Krane et al., 2004; Pike & Maguire, 2003; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996). Some athletes even expressed disbelief or denial that their body was no longer a high performance athletic body, or they could not reconcile their previous body with their new

and damaged body (Sparkes, 1998; Sparkes et al., 1996). The body was central to a person's understanding of himself or herself and also applied limits to the identity that they desired (Budgeon, 2003). Training to be a high performance athlete and wanting that identity was not a guarantee of attaining that level and embodying that identity if the body could not keep up.

Our results indicated that an athlete's understanding of injury changed as she went through the recovery process. Often athletes denied or did not realize the severity of the injury until a specific moment such as receiving a diagnosis, having surgery, or beginning rehabilitation. While initially many athletes intended to return in full strength or had already attempted to play again, that objective was modified throughout their recovery. They had begun to realize the implications of injury on future sports involvement, and consequently doubt shadowed their athletic identity, the identity that most participants considered to be central to their self-perception. Furthering an understanding of injury, and the severity of their injuries forced athletes to re-evaluate themselves and their relationship to sports. Other studies concurred that injured athletes went through a process of reassessing their identity as they realized the severity of their injury and the effects of that injury on their abilities (Collinson & Hockey, 2007; Pike & Maguire, 2003; Pike, 2005; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996). The way they viewed themselves changed throughout that process, and often the initial realization that the injury could prevent future participation was met with disbelief and distress (Pike & Maguire, 2003; Pike, 2005; Sparkes & Smith, 2003; Sparkes, 1998; Sparkes et al., 1996).

Research that investigated ways to address athletes' identity crisis due to injury found that there were ways to ameliorate the negative effects. Practices that allowed

athletes to retain their identity and feel like insiders in the culture of sport enhanced their self-worth (Pike, 2005; Thing, 2004). It was shown that following a similar training path as when the athlete was healthy or wearing high performance athletic gear that identified the injured participants as athletes also improved their self-esteem and inspired athletes to work towards full recovery (Collinson & Hockey, 2007). Several of the participants in our study explained that without the structure of training and playing they felt adrift, and many chose to attend practices and competitions as spectators in order to retain that connection. Leigh had even implored her coach to give her a modified workout though she should have been resting completely. She explained that the emotional benefits of doing a modest workout with the team outweighed the physical benefits of rest, and she believed that it helped her feel more positive towards her recovery. Athletes were upset by their bodies' inability to conform to the standards of the culture of sport. It made them question their athletic identity, hence any connection to sports that legitimized their athletic identity was positive for their recovery. Injury brought about a reassessment of body, identity and future involvement in sport, but if athletes received both support from friends and family as well as support from those they respected within the culture of sport then they were more likely to have a positive attitude towards recovery and better outcomes.

Strengths and Limitations

The comprehensive literature review produced with the guidance of several professors whom I hold in high esteem as well as the pilot interview suggested by one of those professors led to my choice of the social constructivism paradigm. Throughout the

process of writing the literature review and after discussions about the merits of various methodologies with my colleagues and supervisors, I reexamined each suggested methodology in the context of the literature and the purpose of my research. That reflexivity proved to be the most important factor in developing all aspects of my research and writing and in my decision to use the social constructivism paradigm.

The social constructivism paradigm emphasized the importance of culture and social interaction on the development of identity, and the effects that embodying a particular identity had on a person (Palincsar, 1998). It allowed me to explore the effects of the culture of sport and sports social network on athletic identity construction, and the effects of disruptions to that identity on female athletes' experience of injury. The strength of that methodology was that it corresponded closely to my research question: What is the social context of injury in female athletes and how does that affect female athletes both socially and psychologically? Using the social constructivism paradigm I was able to convincingly answer that question and gain further understanding of injury management and secondary injury prevention for female athletes.

Another strength of my research was using focus groups to build an understanding of the social interaction between athletes and how that social interaction affected them when they were injured. The benefit of focus groups was being able to observe those interactions first hand, at the same time asking the athletes how injury had affected them. Focus groups also met my secondary goal of providing an atmosphere where athletes felt supported in sharing their experiences. They openly discussed who they were and how they identified themselves, and shared the stress and disappointment caused by injury. My hope was that this experience would positively impact their self-perception and create

feelings of solidarity between the athletes. Without a formal assessment it was difficult to predict whether the focus groups succeeded to instill those feelings, yet I observed the athletes encouraging each other, sharing advice and information, and supporting each other with body language and words. I believe that using focus groups was a strength in this research both because of the data constructed in the focus group as well as the positive support it provided athletes.

All of the participants except for one were students, and the athlete who was not a student-athlete had many qualities that set her apart from the other study participants. Yet the in-depth interview and data constructed from that interview were relevant and added further insight to the findings. She had competed at the highest level possible in her sport after playing university sports, which was a significantly higher level than most of the other athletes hoped to attain. This required longer and more disruptive commitments such as long distance travelling and even relocating permanently. She had also sustained a career ending injury, and was no longer directly involved in her sport at all. Due to her experiences and strong, likeable, personality she worked part time as an inspirational speaker, and had narrated her story many times. As a former athlete with more perspective and different life experiences, her interview was extremely informative and produced rich data.

Her narrative at times seemed to be a speech that she had formulated for an audience but at other times the data co-constructed with her during the interview was rich and personal. Not every former athlete becomes a motivational speaker and her particular story was inspirational for a number of reasons regardless of whether it was carefully edited for an audience. Also, it was my first time hearing her account and because it was

an interview and not a speech we discussed her experiences in further depth. I had the opportunity to ask her to explain more when I felt that she had glossed over a detail or only scratched at the surface without sharing her emotions and feelings about the experience. The flow of conversation in the interview was different because it lacked the chemistry of a discussion between several athletes. Also, she was a higher-level athlete who had had prior experience telling her story. Yet the data constructed was important both because of its similarities and differences to the data generated in the focus groups.

A limitation of this study was that it only examined the experience of injured female student-athletes, both current and former. The lived experience of women playing sport who were either not talented enough players or students to become university athletes, or who faced other barriers that prevented them from playing at university were not included in this study.

Implications of our Findings

Our study showed that injury disrupted not only the athletic identity, but also the female identity, challenging many aspects of athletes' lives. In addition, sport specific support was highlighted as important to athletes' experience of injury and recovery, and in order to mitigate the effects of injury it may be helpful to integrate sport psychologists into the treatment and care for injured athletes.

The athletic identity was influential in the decisions that athletes made regarding playing with pain, it affected how they dealt with becoming injured and it also affected their recovery. As the participants became more involved in sports they further identified as athletes and the athletic identity became central to their sense of self. Being an athlete

entailed feeling proud of a strong high performance body until injury interrupted that relationship and threatened the athletic identity. The culture of sports was the social context in which that identity was developed and therefore it was influential in establishing the standards and ideals expected of athletes and their performing bodies. It was this culture, also termed the culture of risk, which influenced athletes to play with pain and injury. Athlete's support network included teammates, doctors, athletic therapists and coaches who endorsed the culture of sport and risk to varying degrees, meaning that even while they were injured much of their social support and guidance came from within the culture of sport. Athletic injury was inextricably tied to the social context within which it occurred, and the combined effect impacted female athletes both socially and psychologically.

CONCLUSION

This study examined issues surrounding the social context of injury and how that affected injured female athletes. The experience of injury for female athletes was investigated to increase our understanding of the social and psychological effects of injury as well as factors that prevented women from returning to play in full health.

People who played sports became accustomed to the expectations of the culture of sports. In order to be included in the culture of sport they accepted the terms of the athletic identity as defined by that culture, which included perseverance, self-sacrifice and playing through pain and injury. As they spent more time in sports the athletic identity evolved to become the central identity, and they had less time to pursue other interests. Friendships outside of the culture of sport became difficult to sustain because of

commitments to training and playing schedules. In addition, having more in common with people within the culture of sport who shared their dedication to sports made them more likely to develop relationships within the culture of sport. Their identity, friends and interests became strongly tied to the culture of sport with the benefits and disadvantages that it entailed.

The challenges posed by injury on identity and cultural affiliation affected athletes' emotional response to injury and the way that they related to the injured body. Athletes recounted feeling depressed, disheartened, distressed and above all disappointed in their bodies. They were already committed to continually uphold the ideals of the culture of sport, but the injured body prevented them from keeping up the standards of the high performance body. Athletes discussed the damaged body as a separate entity, endeavoring to separate them and their desire to play from the body that was holding them back. In our study all of the athletes cited instances where they played with injury and pain despite the risk of secondary or further injury. To prevent disappointment in the way that each athlete viewed herself and her body, and in an attempt to conform to the culture of sport and retain the athletic identity they were willing to play at any cost.

Athletes became so accustomed to playing with pain that in many instances they seriously aggravated an injury by continuing to train and compete while injured. Although the culture of sport had established the social context in which athletes expected to play while injured, the people athletes looked to for support affected the way that athletes felt about being injured and how they responded to injury. Social support even influenced the approach they took to their recovery and whether they returned to play before full recovery. Athletes discussed the importance of receiving help from

family and friends especially when injury limited mobility, and they also explained the value of support from coaches, athletic therapists, and teammates from within the culture of sport.

While they were injured, athletes were forced to re-evaluate their athletic identity and position in the culture of sport. In addition to the distress of injury and disappointment in their injured body, they were set adrift without the rigorous training schedule to which they were accustomed and often felt socially isolated from teammates. With drastic changes to their body, lifestyle, and social life, the core of their identity was threatened. Athletes had to reassess the importance of sports in their life and whether it would continue to be the central focus. The social context of the culture of sport amplified the psychological and social impact of injury on athletes.

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APPENDIX A: INCLUSION CRITERIA AND RATIONALE

INCLUSION CRITERIA

1. Female
2. Aged 18-35 years
3. Competitive level of sport varsity and higher
4. Sports injury
5. Injury necessitating missing at least half a sports season or several important events

RATIONALE

Lifetime physical activity decreases the risk for premature mortality, hypertension, type II diabetes, heart disease and obesity (Manley, 1996). Injuries sustained during sport prevent participation for significant periods of time, during which the athlete loses the protective effects associated with involvement in sport (McAllister et al., 2001; Valovich McLeod et al., 2009). In addition, athletic injuries are associated with the loss of sports scholarships, reduced academic performance, loss of time from work or school, mental health problems, and long term disability (Griffin et al., 2006; Hewett & Lindenfeld, 1999).

Participation rates for women in sport have increased considerably in the past three decades, and women and girls engaging in sport have a more positive sense of self, are less likely to experience depression, are less likely to use drugs, and do better in school (Colvin & Lynn, 2010; Harber, 2010). As women's participation in sport increases, injury rates among female athletes also become more prevalent, for example anterior cruciate ligament (ACL) injuries in female athletes are between 4-6 times more common than in males participating in the same sport; patellofemoral joint (PFK) and shoulder injuries are also more common (Harber, 2010; Hewett et al., 2006).

Women athletes also face additional barriers to their participation in sport; they receive less funding and less media coverage. Furthermore, most of the research pertaining to training and conditioning in athletes has been conducted on male Caucasian athletes between 18-25 years of age (Harber, 2010). Training and conditioning is an integral part of injury prevention and management in athletes, and studies have already shown that sport specific training can reduce female athletes' risk of injury (Griffin et al., 2006; Hewett & Lindenfeld, 1999; Mandelbaum et al., 2005).

In order to ensure the continual involvement of women in sport at all levels these issues need to be addressed. This study will focus specifically on injury management in female athletes to increase our understanding of the effects of injury on these athletes' life. It will explore the effects of injury on their academic performance, economic stability, and decision to continue participating in competitive sport. Psychosocial aspects such as quality of life, self-perception, body image, depression and anxieties regarding reintegration into the team and return to previous level of competence will be investigated. Finally their ongoing medical needs and barriers they face on the road to recovery will be explored. I hope that our findings will help target interventions aimed at improving not only these athletes' recovery and return to sport, but also their overall health and quality of life; thus offering a novel contribution to our understanding of secondary injury prevention.

APPENDIX B: CONSENT FOR FOCUS GROUP AND INTERVIEW

Informed Consent Form – Focus Group

Study Name

The Psychosocial Effects of Injury on Female Athletes

Researchers

Michal Scolnik

Masters Candidate

Graduate Program in Kinesiology & Health Science, York University

Email address: michal.scolnik@gmail.com

Office phone: (416) 736-2100 ext. 20229

Cell phone: (416) 826-4756

Purpose of the research

The purpose of this research is to increase our understanding of the psychosocial effects of injury on female athletes in order to translate this knowledge into useful interventions to aid recovery. I intend to conduct 3 focus groups of 2-9 female athletes. Issues such as time away from sport, well-being, sense of self, academics, relationships and employment will be analyzed using the social constructivism theory, a qualitative methodology. I will guide each session and audio record the focus groups on a digital audio recorder. I hope to present my findings as a poster or abstract at a national conference and subsequently publish them in a high impact peer reviewed journal.

What you will be asked to do in the research

You will be asked to respond to and discuss the focus group questions for approximately 1.5 hours.

Risks and discomforts

The risk to you is the possible discomfort of discussing a topic that may be distressful. We will have resources available to refer you for further help and support as needed.

Benefits of the research and benefits to you

You may benefit from giving voice to your experiences. You will be able to share the difficulties that you may have faced as a female athlete who has been injured, and the barriers perceived to your recovery. The focus groups will help me (the researcher) by generating data that I will use in my thesis.

Voluntary participation

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the relationship you may have with the researcher or study staff or the nature of your relationship with University of Toronto or York University either now, or in the future.

Withdrawal from the study

You can stop participating in the study at any time, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researchers, York University, or any other group associated with this project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality

My computer is password protected, is not on a shared network, and is only used by me. The data will be destroyed at the completion of my Masters by June 2014. No personal identifiable information such as date of birth, name, initials or address will be recorded. Contact information will be kept in a separate and locked location from the interview data in order to allow me the opportunity to clarify details with the participants. Confidentiality will be provided to the fullest extent possible by law.

Focus Group Privacy Statement

Please understand that although the researcher will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the researcher from guaranteeing full confidentiality. Please respect the privacy of your fellow participants and do not repeat what is said in the focus group to others.

Non-Disclosure Statement

I _____ agree to maintain the confidentiality of the information discussed by all participants and researchers during the focus group session. Agreement to the above statement is necessary for participation in this study.

Questions about the research?

If you have questions about the research in general or about your role in the study, please feel free to contact Michal Scolnik either by telephone at (416) 826-4756 or email michal.scolnik@gmail.com, or Dr. Alison Macpherson by email at alison3@yorku.ca. You can also contact the school of Kinesiology and Health either by telephone at (416) 736-5807 or by email at ugkhs@yorku.ca for further questions.

This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about his process, or about your rights as a participant in the study, you may contact the Senior Manager and Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University, telephone 416-736-5914 or e-mail ore@yorku.ca.

Legal rights and signatures:

I, _____, consent to participate in _____
conducted by Michal Scolnik. I have understood the nature of this project and wish to
participate. I am not waiving any of my legal rights by signing this form. My signature
below indicates my consent.

Signature _____
Participant

Date _____

Signature _____
Principle Investigator

Date _____

Informed Consent Form – Interview

Study Name

The Psychosocial Effects of Injury on Female Athletes

Researchers

Michal Scolnik

Masters Candidate

Graduate Program in Kinesiology & Health Science, York University

Email address: michal.scolnik@gmail.com
20229

Office phone: (416) 736-2100 ext.

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What you will be asked to do in the research

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Risks and discomforts

The risk to you is the possible discomfort of discussing a topic that may be distressful. We will have resources available to refer you for further help and support as needed.

Benefits of the research and benefits to you

You may benefit from giving voice to your experiences. You will be able to share the difficulties that you may have faced as a female athlete who has been injured, and the barriers perceived to your recovery. The focus groups will help me (the researcher) by generating data that I will use in my thesis.

Voluntary participation

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Withdrawal from the study

You can stop participating in the study at any time, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researchers, York University, or any other group associated with this project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality

My computer is password protected, is not on a shared network, and is only used by me. The data will be destroyed at the completion of my Masters by June 2014. No personal identifiable information such as date of birth, name, initials or address will be recorded. Contact information will be kept in a separate and locked location from the interview data in order to allow me the opportunity to clarify details with the participants. Confidentiality will be provided to the fullest extent possible by law.

Questions about the research?

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Legal rights and signatures:

I, _____, consent to participate in _____ conducted by Michal Scolnik. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature
Participant

Date

Signature
Principle Investigator

Date

APPENDIX C: FOCUS GROUP AND INTERVIEW GUIDE

FOCUS GROUP PROCESS AND QUESTIONS

I will introduce myself in the following manner. My name is Michal and I am a graduate student working with Doctor Alison Macpherson who is a professor at York Univeristy. I am interested in finding out how your injury affected your academics, sport participation and life in general. I hope that this information will allow me to figure out some of the specific challenges facing elite female athletes so that we can help facilitate their road to recovery. I also hope that these focus groups allow you to share your experiences with each other in a way that will support and benefit each of you. The participants will be required to respond to questions around issues such as:

Background Info

- Demographics - age, year of birth, year of study, course of study
- What sport do you play? (team, hours of training, previous sporting experience)
- What was the outcome of your injury? (time, rehab, meds, cost)

Social support and subculture

- List all of your serious injuries. (note what considered serious, proud of list, reaction to each other's injuries)
- Describe your worst injury. Why was it your worst? (physically worst / longest recovery / biggest impact on sports decisions?)
- Who did you turn to first when you were injured? Why?
- Describe a time when you have felt pressure to play through injury? OR To overwork at your rehab? /To return quicker than advised to your sport?
How was that pressure exerted? Why was that pressure exerted? Why you did/ did not bow to that pressure? What factors contributed to your playing hurt?
- Describe a time when someone connected to your team (teammate, coach, AT) supported or did not support you while you were injured.
- How has the injury affected your social interactions with teammates? With those involved with the team? With people not connected to your sport?

Sense of self, and athletic identity

- How did your most recent injury requiring rehab, or your worst injury, affect your self perception? For example: the way you view your body/ your image/ how you think of yourself?
- How do you think this injury will affect your future sport performance?
- How do you feel (do you feel) that your injury experience / care differs from that of male athletes at York?
- While you were trying to recover from your injury how did you do in school and at work (if work outside of school)?
- What could have ameliorated the effects of the injury?
- Is there anything that you feel that I haven't covered that may be relevant or important?

INTERVIEW GUIDE

If there are interviews then the interview guide will have the same questions as the focus groups, and a similar introduction.

ATHLETES

Recruiting Injured Female Athletes

Please participate in my research! I am a Kinesiology student at York, and I'm doing my masters on The Psychosocial Effects of Injury on Female Athletes. To collect data I'm conducting 2-3 focus groups of 2-9 female athletes. It will only take 1½ of your time on November 19. Times will be set according to practice schedules and availability. Light refreshments will be served.

Participants please email
mitchal.zeolink@gmail.com

Participants please email
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APPENDIX E: RECRUITMENT E-MAIL

Dear Coach,

As part of my Masters thesis I am conducting focus groups for injured female athletes both to help with the recovery process as well as to gain insight into the experiences of injury for student athletes.

I have attached ethics clearance.

Would you be willing to email the following to any injured athletes on your team?

Thank you,

Michal

Hi ladies,

I wanted to forward you some information regarding a study conducted by a MSc student. Michal is a graduate student and researcher in the School of Kinesiology, and a former varsity athlete. She is interested in studying the Psychosocial Effects of Injury on Female Athletes. So those of you who picked up knocks and injuries and are still dealing with treatment and recovery are perfect candidates! This is a great opportunity to see what it is like to be part of a study, and be a student at the graduate level.

If you are interested please email Michal directly - her email is included above. Refer to the information below for details. Thank you for your time. Hope everyone is well!

Kind regards,
















Recruiting Injured Female Athletes

Please participate in my research! I am a Kinesiology student, and I'm doing my masters on The Psychosocial Effects of Injury on Female Athletes. To collect data I'm conducting 2-3 focus groups of 3-9 female athletes. It will only take 1½ of your time on November 18.

Light refreshments will be served.

APPENDIX F: CODES AND THEMES

Codes from Nvivo Analysis

name	▲	D
 1 background and miscellaneous.pdf		D
 2 Barriers and attitude.pdf		D
 2a barriers, and regret and self blame.pdf		D
 2b money and time...playing and life.pdf		D
 2c pressure to play.pdf		D
 2d Why is this happening to me.pdf		D
 3 identity.pdf		F
 3a body image and body talk.pdf		D
 3a1 awareness of injury in others.pdf		D
 4 injury understanding.pdf		D
 4a injury description and talk.pdf		D
 4b injury severity r...on or admission.pdf		D
 5 support people and social support.pdf		F
 5a support within focus group.pdf		D
 5b sex differences.pdf		D

Themes

Pressure to play and other barriers

Social Support

The culture of sport

The athletic identity